# ANNEX A: GEF-6 PROGRAMMING DIRECTIONS

(Prepared by GEF Secretariat)

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# INTRODUCTION

**Programming for GEF-6**

1. This document contains the details of the programs and activities for the four years for GEF-6 covering July 1, 2014 to June 30, 2018. It has been prepared taking into account the findings of the Fifth Overall Performance of the GEF, the Strategic Positioning of the GEF, discussions at the replenishment negotiations and feedback received from the Participants.

2. Ecosystems are being pushed to their limit. Human demands imply that key ecosystems are now increasingly approaching their carrying capacity to the extent that abrupt changes—which may be prohibitively costly or simply impossible to reverse—can no longer be ruled out. The pressure on resources is set to increase in the coming decades as the result of three global megatrends, including a 2 billion increase in global population by 2050, accompanied by a rapid increase in the global middle class by 3 billion in just the next two decades, almost all of whom are likely to live in cities. The megatrends influence various indirect drivers as the world needs to meet a doubling in demand for food, energy, human habitat, transportation, and others that together create direct pressures on the global environment.

3. The various multilateral environmental conventions for which the GEF serves as financing mechanism have set ambitious targets aimed at addressing environmental degradation. Reflecting the guidance provided to the GEF by the various Conferences of Parties (COPs), the programing strategies developed for GEF-6 seeks to achieve impacts at scale while delivering global environmental benefits, consistent with GEF's mandate. Building on GEF's accumulated experiences and achievements, GEF-6 projects and programs have a strong focus on the drivers to better be able to tackle the "root-causes" of environmental degradation, which is critical to slow and eventually reverse environmental trends. It should also be noted that given the magnitude of the potential adverse impacts of climate change the GEF Council has encouraged the GEF to reflect resilience in its projects. As a measure to address this call, the GEF has increasingly sought synergies and efficiency gains by supporting multi-focal and multi-trust fund projects that combine funding from the Least Developed Countries Fund and Special Climate Change Fund with that of various GEF focal areas, even though these voluntary funds are not a part of the replenishment process.

4. The objective of the GEF is to achieve an overall net benefit to the global environment. In this endeavour and whenever relevant, projects in one focal area should avoid negative impacts on objectives of other focal areas.

5. During the replenishment negotiations, there was broad support for the proposed programming directions. This document contains focal area strategies covering: (i) biodiversity; (ii) climate change mitigation; (iii) chemicals and waste; (iv) international waters; and (v) land degradation; and strategies for: (i) sustainable forest management; and (ii) corporate programs.

6. Replenishment participants also agreed that, if designed well, introducing a limited number of Integrated Approach pilot programs could keep the GEF on the leading edge of innovation and enhance the GEF's responsiveness to regional and global issues. Developed on extensive consultations with GEF Implementing Agencies, this document contains descriptions of three Integrated Approach pilots: (i) Taking Deforestation out of the Commodities Supply

Chain; (ii) Sustainable Cities—Harnessing Local Action for Global Commons; and (iii) Fostering Sustainability and Resilience of Food Production Systems in Sub-Saharan Africa.

**Resource Envelopes for GEF-6**

7. Following a restructuring in 1994, the GEF Trust Fund was replenished five times: GEF-1 Replenishment (1994-1998) for $2.0 billion, GEF-2 Replenishment (1998-2002) for USD 2.75 billion, GEF-3 Replenishment (2002-2006) for USD 3.0 billion, GEF -4 Replenishment (2006-2010) for USD 3.13 billion, and GEF-5 Replenishment (2010-2014) for USD 4.34 billion.

8. Programming scenarios for GEF-6 are presented for two resource envelopes, viz: (i) $4.25 billion, which represents "status quo" compared with the GEF-5 programming level[1]; and (ii) $4.89 billion, which represents a 15 percent increase over the GEF-5 programming level.[2]

*Scenario 1*

9. Scenario 1, the "status-quo" scenario presents the proposed programing level within an unchanged resource envelope compared to GEF-5. In the status quo scenario the GEF would be faced with some stark choices as a result of the increased responsibilities with which the GEF has been entrusted going forward. In particular, the decision taken in Kumamoto, Japan, on October 9-11, 2013 by the Diplomatic Conference on the new Mercury Convention to request the GEF to serve as "a key financial mechanism to the mercury convention" implies an increase in demand for GEF resources. At the request of replenishment participants, and recognizing the significant uncertainty about the timing of the ratification process, the proposed Chemicals and Waste Focal Area provides detailed information about the minimum estimated financing needed for the implementation of the new Mercury Convention during GEF-6. The programing document suggests a modest reduction in the Climate Change Focal Area in view of the emergence of new financial mechanisms, including the Green Climate Fund, and the constraints inherent in status quo scenario. As emphasized by Evaluation Office in its OPS-5, considering the urgency of the global environmental problems, the resources needed for the GEF to meet its core mandate far outstrips what is being made available through replenishments. For example, the "status quo" scenario provides only a modest increase in funding for Biodiversity despite a decision at the Biodiversity COP11 called for doubling of the total biodiversity-related international financial resource flows to developing countries by 2015.

*Scenario 2 (15% increase)*

10. Given the context that the resource demands for global environmental management vastly outstrip availability of funding, and given the broadening of the scope of the GEF's mandate due to the Mercury Convention, the enhanced impact scenario aims for an overall increase of 15

[1] GEF-5 programming and application of the STAR was based on the USD 4.25 billion agreed as the GEF-5 programming scenario. The final replenishment amount, including additional pledges from donors, increased to USD 4.34 billion.

[2] In formulating the specific indicative target amounts to program for each focal area and theme, it is important to take into account the following: (i) any reserves needed to mitigate foreign exchange and investment income volatility; (ii) the likelihood of unfulfilled GEF-6 pledges; and (iii) the risk of non-payment of GEF-6 Instruments or Commitment or Qualified Instruments of Commitment (i.e., new arrears). Each of these events impacts the actual programming capacity during a replenishment period.

percent compared to the GEF-5 programming level. Such an increase would allow for more robust funding for the new Mercury Convention, and also for a substantial increase to the biodiversity focal area, and it would enable the GEF to significantly expand its dedicated funding for the private sector. At the same time, it would accommodate modest increases in other GEF areas; in particular it would enable the GEF to preserve a robust funding level for the climate change focal area.

**Table 1 - Proposed Indicative Resource Envelopes for GEF-6**

| **Focal Areas/Themes** | **GEF-5 Programming Targets ($ million)** | **GEF-6 Programming Targets ($ million)** | |
|---|---|---|---|
| | | **Status Quo** | **Status Quo Plus** |
| BIODIVERSITY | 1,210 | 1,240 | 1450 |
| CLIMATE CHANGE | 1,360 | 1,220 | 1370 |
| CHEMICALS AND WASTE | 425 | 535 | 600 |
| INTERNATIONAL WATERS | 440 | 440 | 500 |
| LAND DEGRADATION | 405 | 415 | 475 |
| NON GRANT INSTRUMENTS PILOT | *80* | 85 | 150 |
| CORPORATE PROGRAMS | 210 | 190 | 215 |
| | | | |
| Corporate Budget: Secretariat, STAP and Trustee 1/ | 120 | 106 | 110 |
| Independent Evaluation Office | | 19 | 20 |
| | | | |
| **TOTAL GEF Replenishment** | **4,250** | **4,250** | **4,890** |

1/ In GEF5, the Evaluation Office budget was part of the Corporate Budget

*Memo items:*

| | | | |
|---|---|---|---|
| - Sustainable Forest Management | 250 | 250 | 250 |
| - Integrated Approach Programs | | 160 | 160 |

## Corporate Results Framework

11. Based on the focal area results frameworks presented in this document, a corporate-level results framework is developed as shown in Table 2. Progress in programming against these targets will be reported during the mid-term and at the conclusion of the replenishment period.

**Table 2 - Generate Global Environment Benefits**

| Results | Targets[3] |
|---|---|
| 1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society | • Improved management of landscapes and seascapes covering 300 million hectares |
| 2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes) | • 120 million hectares under sustainable land management. |
| 3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services | • Water-Food-Energy-Ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins;<br>• 20% of globally over-exploited fisheries (by volume) moved to more sustainable levels |
| 4. Support to transformational shifts towards a low-emission and resilient development path | • 750 million tons of CO2 equivalent mitigated |
| 5. Increase in Phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern. | • Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)<br>• Reduction of 1000 tons of Mercury<br>• Phase-out of 303.44 tons of ODP (HCFC) |
| 6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream (MEAs) into national and sub-national policy, planning financial and legal frameworks. | • Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries<br>• Functional environmental information systems are established to support decision-making in at least 10 countries |

12. A framework to track GEF process effectiveness and efficiency is also established as show in Table 3. While reporting on some indicators is done in the Annual Monitoring Review, others will be reported at mid-term and at the conclusion of the replenishment period.

[3] For the $4.25 billion replenishment scenario

Table 3: GEF-6 Process Framework

***Improve Effectiveness and Efficiency***

| Indicators | GEF-5 Performance | GEF-6 Performance |
|---|---|---|
| ***1. Project Cycle Performance*** | | |
| 1.1. Percentage of projects meeting the project cycle standard of 18 months between PIF approval by Council and CEO endorsement. | 33 percent as of January 2014 | monitored |
| 1.2. Average time for projects to be processed between PIF approval by Council and CEO endorsement. | 16 months as of January 2014 | monitored |
| 1.3. Average time for full-sized projects from CEO endorsement to first disbursement. | Not available (to be presented in AMR, Part II, FY13) | monitored |
| ***2. Results Driven Implementation*** | | |
| 2.1. Percentage of projects that have received moderately satisfactory or higher ratings on progress towards development objectives. | 89% | monitored |

***Enhance Gender Equality, and Stakeholder Involvement***

| Indicators | GEF-5 Performance | GEF-6 Performance |
|---|---|---|
| ***1. Gender Equality and Women's Empowerment*** | | |
| 1.1. Percentage of projects that incorporated gender equality and women empowerment issues. | | |
| • Project document (quality at entry) | 57 % | monitored |
| • Project monitoring and evaluation reports | 41% | monitored |
| ***2. Stakeholder Engagement*** | | |
| 2.1. Percentage of projects that involves civil society organizations/indigenous peoples as key partners. | CSOs: 59% (of cumulative projects as presented in AMR, Part II, FY13) | monitored |
| 2.2 Share of Private Sector co-financing | 20.3% | monitored |

***Improve GEF Outreach***

| Indicators | GEF-5 Performance | GEF-6 Performance |
|---|---|---|
| 1. GEF stories/mentions in media | 4664 | monitored |
| 2. Users of GEF electronic media | 1,913,221 | monitored |
| 3. Country Support Program elements | Statistics of program | monitored |

***Improve Diversity in Secretariat Staffing***

| Indicators | GEF Performance | GEF-6 Performance |
|---|---|---|
| Diversity Index as computed by the World Bank[4] | 0.87 | monitored |

[4] 0.4*share of staff from Sub-Saharan Africa+0.2*share of professional women staff+0.2*share of part II managers+0.2*share of women managers – all shares normalized against target.

# PROGRAMMING STRATEGIES

## BIODIVERSITY FOCAL AREA STRATEGY

## Background

### *Biodiversity Status*

1. The Convention on Biological Diversity (CBD) defines biodiversity as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems." [5]

2. The Millennium Ecosystem Assessment and TEEB (The Economics of Ecosystems and Biodiversity) demonstrated that biodiversity underpins ecosystem goods and services that are required for the survival of human societies and for the future of all life on the planet. In addition, biodiversity generates considerable economic value through the provision of goods such as food, water, and materials, and services such as climate regulation, pollination, disaster protection, and nutrient cycling.[6]

3. Governments, civil society organizations, the private sector, indigenous people and local communities, and others have made some progress in sustainably managing biodiversity and ecosystems at local and national levels, but not at the scale necessary to stem the ongoing tide of biodiversity loss globally. Current estimates indicate that species loss is occurring at 1,000 to 10,000 times the natural background rate. Of all the global environmental problems facing the world today, biodiversity loss is the only one that is likely irreversible.

4. The global target set for 2010 by the CBD "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth" was not met. The Global Biodiversity Outlook 3 reported the following sobering analysis:

(a) Species that have been assessed for extinction risk are on average moving closer to extinction. Amphibians face the greatest risk, and coral species are deteriorating most rapidly in status. Nearly a quarter of plant species are estimated to be threatened with extinction.

(b) The abundance of vertebrate species, based on assessed populations, fell on average by nearly a third between 1970 and 2006, and continues to fall globally, with especially severe declines in the tropics and among freshwater species.

(c) Natural habitats continue to decline in extent and integrity, although the rate of loss for tropical forests and mangroves has slowed significantly in some regions. Freshwater wetlands, sea ice habitats, salt marshes, coral reefs, seagrass beds, and shellfish reefs are all showing serious declines.

(d) Extensive fragmentation and degradation of forests, rivers, and other ecosystems

[5] Convention on Biological Diversity, UNEP/CBD/94/1.
[6] Millennium Ecosystem Assessment 2005, Ecosystems and Human Well-being: Synthesis, Island Press, Washington DC; TEEB (2010) The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB.

have also led to loss of biodiversity and ecosystem services.

(e) Crop and livestock genetic diversity continues to decline in agricultural systems.[7]

***Drivers of Biodiversity Loss***

5. The Millennium Ecosystem Assessment highlighted the five main direct drivers of biodiversity loss: habitat change, overexploitation or unsustainable use, invasive alien species (particularly in island ecosystems), climate change, and pollution.[8] More recent analyses, including the Global Biodiversity Outlook 3, reported that these five drivers remain the principal causes of biodiversity loss and are either constant or increasing in intensity. An analysis of the proportion of threatened species on the IUCN Red List (mammals, birds, amphibians) affected by each driver showed that more than 80% are under threat from habitat loss, 70% from overexploitation and unsustainable use, and almost 30% from invasive alien species. Although climate change is an emerging driver, less that 20% of threatened species are affected by climate change and only 10% by pollution.[9]

***Conference of the Parties (COP) Guidance to the GEF***

6. The guidance to the GEF from COP-11 covering GEF-6 (2014-2018) directed the GEF to support the implementation of the Strategic Plan for Biodiversity 2011-2020, including the new Strategic Plan for biosafety and the first set of guidance provided to the GEF from the Open-ended Ad Hoc Intergovernmental Committee for the Nagoya Protocol on Access and Benefit-sharing (ICNP).[10] However, the COP did not prioritize the elements of the Strategic Plan or the Aichi Targets that GEF should support during GEF-6.

7. The Strategic Plan for Biodiversity 2011-2020 and the guidance provide to the GEF is ambitious, comprehensive, and potentially expensive to implement. At COP-11, an estimate of the resources required to implement the strategic plan and achieve the Aichi Targets within GEF-eligible countries was presented by an external expert group. The estimate of the amount of resources required for the GEF-6 period ranged from $ 35-87 billion in total for GEF-eligible countries, and, after applying various co-financing ratios, the GEF incremental amount ranged from $5 billion to $29 billion[11].

***Rationale and Approach***

8. The GEF-6 strategy does not explicitly address all direct or indirect drivers of biodiversity loss. The strategy prioritizes the three principal direct drivers — habitat loss, overexploitation, and invasive alien species — which remain the most critical for the achievement of the Aichi Targets and are largely responsible for current trends of biodiversity loss and ecosystem degradation. This approach will provide the best opportunity for GEF to

[7] Secretariat of the Convention on Biological Diversity (2010) Global Biodiversity Outlook 3. Montréal, 94 pages.
[8] Millennium Ecosystem Assessment 2005, Ecosystems and Human Well-being: Synthesis, Island Press, Washington DC.
[9] H. M. Pereira, L. M. Navarro, and I. S. Martins, "Global Biodiversity Change: The Bad, the Good, and the Unknown," Annual Review of Environment and Resources, vol. 37, no. 1, pp. 25–50, Jan. 2012.
[10] UNEP/CBD/COP/DEC/XI/4.
[11] UNEP/CBD/COP/11/INF/35.

exploit the intersection of GEF's mandate and the Strategic Plan and the associated Aichi Targets, and will ensure that GEF investments achieve impact at scale while delivering global environmental benefits.The current drivers of biodiversity loss require a multi-pronged strategy to sustain biodiversity through a combination of protection, sustainable use, and biodiversity mainstreaming.

9. GEF's response recognizes that effectively managed protected area systems — a cornerstone of conservation for more than 100 years — make significant contributions to achieving many of the Aichi Targets. Protected area systems provide economically valuable ecosystem goods and services and hence are core elements of a country's ecological infrastructure. Development and resource use external to the protected area estate, however, often degrades biodiversity and ecosystem goods and services. Targeted threat reduction and the promotion of the sustainable use of biodiversity can help secure the protected areas themselves while contributing to the sustainable management and climate-resiliency of the surrounding landscapes and seascapes.

10. Biodiversity mainstreaming is the process of embedding biodiversity considerations into policies, strategies, and practices of key public and private actors that impact or rely on biodiversity. Mainstreaming enables biodiversity to persist across entire landscapes and seascapes. The societal failure to adequately price the economic value of biodiversity has undermined the long-term sustainability of mainstreaming efforts, which have often focused too narrowly on threat mitigation and palliative attempts to offset biodiversity loss. GEF support to biodiversity mainstreaming actions that addresses this systemic failure is paramount.

11. Ecosystem-based adaptation includes "the sustainable management, conservation and restoration of ecosystems to provide services that help people adapt to the adverse effects of climate change".[12] GEF will continue to support activities — primarily through Programs 1,2, and 9 — that, *while generating global biodiversity benefits as their primary purpose*, also may provide nature-based adaptation solutions. These activities must be operationally feasible and help strengthen ecosystem resilience and maintain biodiversity in the face of climate change. This would include, for example, support to improving protected area management, and protected area system and site design (Programs 1 and 2) and biodiversity mainstreaming in production landscapes and seascapes (Program 9), among other potential entry points. Furthermore, the biodiversity strategy seeks to maintain biodiverse landscapes and seascapes at sufficient scale and extent to strengthen terrestrial and oceanic ecosystem integrity and the significant role these ecosystems play in the global carbon cycle, allowing these ecosystems to serve as major carbon stores and sinks. Securing ecosystem integrity through these programs will help maintain essential ecosystem services that help people cope with changes in water supplies, fisheries, incidence of disease, and agricultural productivity caused by climate change.

[12] Connecting Biodiversity and Climate Change Mitigation and Adaptation: Report of the Second Ad Hoc Technical Expert Group on Biodiversity and Climate Change. Montreal, Technical Series No. 41. Secretariat of the Convention on Biological Diversity (2009).

12. The CBD Strategic Plan for Biodiversity 2011-2020 and its Aichi targets form the global policy framework and entry point for harnessing synergy amongst the biodiversity-related conventions.[13] The Strategic Plan has been recognized as such in various COP decisions or resolutions of the governing bodies for the other biodiversity-related conventions and ongoing work is under way in several conventions with a view to aligning their respective strategic frameworks even more strongly with the Strategic Plan. Hence, due to the inclusive and comprehensive nature of the GEF biodiversity strategy, ample opportunity exists for the inclusion of pertinent GEF-eligible activities, as prioritized in the country's revised National Biodiversity Strategy and Action Plans (NBSAPs), to exploit this synergy amongst the conventions and advance shared objectives.

13. A contributing element for promoting sustainability of biodiversity is opportunistic engagement with the private sector. In the past, the GEF biodiversity focal area has supported numerous projects that demonstrate successful private sector engagement and have attracted significant private sector co-financing. Consistent with the GEF-6 private sector strategy, this focal area will encourage the use of a range of intervention models, including support for enabling policy environments, corporate alliances, and capacity building/incubation for innovation as appropriate to advance the goals of the Strategic Plan for Biodiversity 2011-2020. Each model may be used in different ways across several categories of private sector players, including capital providers, financial intermediaries, and other key partners (large corporations, small and medium enterprises, resource user groups, cooperatives, and individuals). Within that context, the biodiversity focal area will support projects that propose innovative engagement with the private sector and that aim to complement rather than replace public sector support.

### *Gender*

14. Rural women and men each play important but differentiated roles in biodiversity management, use, and conservation through their tasks and responsibilities in food production and provision, spanning the realm of agriculture, fisheries and forestry management. The type of knowledge resource managers possess varies by age, gender, and an individual's associated roles and responsibilities. As daily natural resource managers, they influence the total amount of genetic diversity conserved or used. Consequently, they have different needs, priorities, and perspectives about the use of crops, plants, and animals. Access to or control over resources and biodiversity as well as education, training, information and control of the benefits of production also influences the type of knowledge that rural men and women have and how they use that knowledge. Women often take the lead in selection and improvement of local plant varieties, as well as seed exchange and management, and thus play a critical role in the sustainable use of plant and genetic resources. In many areas they are also the primary collectors of wild foods in forests and they possess extensive knowledge of their location and characteristics. In spite of the important contributions that women make to the conservation and sustainable use of forest biodiversity and agrobiodiversity, women's roles and knowledge are often overlooked or

[13] The biodiversity-related conventions are: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on the Conservation of Migratory Species of Wild Animals (CMS), International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), The Ramsar Convention on Wetlands, and the World Heritage Convention (WHC).

underestimated in biodiversity programs, projects and policies related to management of these and other ecosystems.

15. The CBD recognized the important role of women in achieving the objectives of the Convention from its initiation, and in the thirteenth paragraph of its preamble, Parties recognize "the vital role that women play in the conservation and sustainable use of biological diversity and affirm the need for the full participation of women at all levels of policy making and implementation for biological diversity conservation". Subsequent decisions by the COP and recommendations from the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) have sought to ensure women's participation in conservation and sustainable use of biodiversity, particularly agricultural biodiversity, and identify gender-specific ways in which to document and preserve women's knowledge of biological diversity. Implementation of Article 8(j) calls for "Full and effective participation of women of indigenous and local communities in all activities of the programme of work". The Nagoya Protocol recognizes "the vital role that women play in access and benefit-sharing" and calls particular attention to this role in its Articles 12 (traditional knowledge), 22 (capacity) and 25 (financial mechanism and resources). The preamble calls for the participation of women in decision- and policy-making surrounding access and benefit-sharing.

16. By and large, these decisions and recommendations mainly focus on participation as opposed to gender equality. In 2008, a Gender Plan of Action was approved at COP-9 to move the agenda forward towards gender equality. In 2010, in adopting the Strategic Plan for Biodiversity 2011-2020, the COP requested Parties "to mainstream gender considerations in the implementation of the Strategic Plan and its associated goals, the Aichi Targets, and indicators"; and recognized the need for capacity-building, including on gender mainstreaming, for effective national action. At COP-11, Parties further emphasized "the importance of gender mainstreaming in all programmes of work under the Convention as important to achieving the objectives of the Convention and the Strategic Plan for Biodiversity 2011–2020".

17. Therefore, consistent with the GEF policy on gender mainstreaming, GEF projects funded under this strategy will not only acknowledge gender differences within their design but determine what actions are required to promote both women and men's roles in biodiversity management as this is fundamental for sustaining biodiversity, particularly in specific ecosystems and project intervention types where specialized knowledge and management responsibilities have historically accrued to either women and men, respectively. Although comprehensive and systematic empirical knowledge on how women and men manage biodiversity in all ecosystems is inadequate at present, the critical role that each play in the management of particular ecosystems and project intervention types has been well-documented, for example, women's role in the management of agrobiodiversity and men's role in the sustainable use of wildlife, and these opportunities will require particular focus. All project designs will seek to avoid adverse consequences for the most vulnerable groups, including indigenous peoples and local communities, especially women.

18. Project proponents will be required to conduct gender analysis as part of the socio-economic assessment during project preparation to ensure that the intervention design incorporates and recognizes the differences between rural women's and men's labor, knowledge, needs, and priorities. Projects will use gender-sensitive indicators and collect sex-disaggregated

data and this will be systemically recorded, reported and integrated into adaptive management responses at the project level. In addition, projects will use the GEF gender mainstreaming core indicators which will be aggregated for portfolio level monitoring and reporting purposes. Finally, given that the knowledge base on gender and biodiversity management is still evolving and being codified, the GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in biodiversity projects.

**Goal and Objectives**

19. The goal of the biodiversity focal area strategy is to maintain globally significant biodiversity and the ecosystem goods and services that it provides to society. To achieve this goal, the strategy encompasses four objectives:

(a) improve sustainability of protected area systems;

(b) reduce threats to biodiversity;

(c) sustainably use biodiversity; and

(d) mainstream conservation and sustainable use of biodiversity into production landscapes/seascapes and sectors.

20. The GEF-6 biodiversity strategy is composed of ten programs that directly contribute to implementing the Strategic Plan and achieving the Aichi Targets through a continuum of measures that address the most critical drivers of biodiversity loss across entire landscapes and seascapes. The programs include direct conservation/protection, threat-reduction, sustainable use, and biodiversity mainstreaming approaches. Each program provides a response to threats and opportunities that are spatially and thematically targeted, i.e., providing a focused and calibrated response in a specific ecosystem or location in a landscape or seascape. In addition, for the first time, the strategy addresses the most critical underlying driver of biodiversity loss; the failure to account for and price the full economic value of ecosystems and biodiversity.

21. In addition to the ten programs presented in the strategy, GEF will also provide support through the focal area set aside to countries to produce their 6$^{th}$ National Report to the CBD as well as national reporting obligations under the Cartagena Protocol and Nagoya Protocol that will be identified during upcoming COP-MOPs and that will come due during the GEF-6 period. The overwhelming majority of GEF-eligible countries (95%) have received support during GEF-5 to revise their NBSAP to be aligned with the Strategic Plan and the Aichi Targets. However, the few remaining countries that have not been able to submit a project proposal will remain eligible for support to revise their NBSAP during GEF-6. Consistent with past practice and the GEF project review criteria, projects submitted for funding in GEF-6 will have to demonstrate that the thematic areas addressed within the project have been prioritized within the NBSAP and are appropriately aligned with the Strategic Plan and the Aichi Targets.

22. In order to provide greater return on investment, the strategy prioritizes a series of Programs that meaningfully contribute to all four goals of the Strategic Plan and 14 of the 20 Aichi Targets. These programs also have the greatest potential for a “knock-on” effect to help achieve other Aichi Targets. Although not explicitly highlighted in the Aichi Targets, the strategy also incorporates elements of the new Strategic Plan on Biosafety, with a focus on

implementation of National Biosafety Frameworks (NBF) as this remains unfinished business from previous GEF phases.

23. It is important to note that while Aichi Targets 1, 8, 17, 18, 19 and 20 are not supported through a targeted and specific biodiversity program; they will still receive direct and indirect support during GEF-6. First, awareness-raising as identified in Target 1 will be supported as an element of GEF projects and programs as appropriate, but not as a stand-alone activity. Experience from GEF's biodiversity portfolio has demonstrated that investments in awareness-raising are not effective unless linked with an actual project intervention on biodiversity management or policy development. Second, contributions to Target 8 will be made both directly and indirectly through the implementation of the International Waters, Chemicals, and Land Degradation Focal Area strategies, respectively. Third, GEF will have funded the development of revised NBSAPs during GEF-5 in almost all countries. Therefore, the implementation of priority actions within each country's revised NBSAP will be supported through the entirety of the GEF-6 biodiversity strategy and specific GEF-6 integrated approaches, thus contributing to Target 17.[14] Fourth, both Targets 18 and 19 are deemed as operational means to an end and their integration into the project design and implementation process will be encouraged as relevant to specific project designs. With regards to Target 20, GEF will track the total amount of co-financing leveraged through GEF biodiversity projects and actively encourage and promote such leverage, including through multi-focal area projects and other GEF projects that contribute directly and indirectly to the Aichi Targets. In sum, the breadth of the GEF-6 strategy provides ample opportunity for countries to prioritize GEF-supported investments, as defined in the revised NBSAP, to achieve the Aichi Targets.

24. The four objectives of the GEF strategy respond directly to the four goals of the Strategic Plan, but do so in a targeted way to help ensure that the GEF contribution to each goal and the associated targets will have the greatest impact per dollar invested. Annex 1 demonstrates the contribution of the objectives and programs of the GEF biodiversity strategy to the goals of the Strategic Plan and the associated Aichi Targets.

25. In addition, the following GEF-6 integrated approaches; Taking Deforestation out of Commodity Supply Chains and Fostering Sustainability and Resilience for Food Security in Africa, will also make contributions to achieving the Aichi Targets, as will other GEF focal areas. Contributions of each pilot on integrated approaches and other GEF focal area strategies are also presented in Annex 2.

### *BD 1: Improve Sustainability of Protected Area Systems*

26. GEF support to the establishment and management of protected area systems and associated buffer zones and biological corridors has arguably been GEF's greatest achievement during the last 20 years. Supporting the management of protected areas is not only a sound investment in biodiversity conservation and sustainable use, but also provides significant additional economic and environmental benefits beyond the existence value of biodiversity.

[14] The GEF-6 integrated approaches are distinct from the biodiversity strategy and are described in the document, "GEF-6 Programming Directions" under the section entitled "Integrated Approaches to the Global Environment for the Implementation of Multilateral Environmental Agreements and Promoting Sustainable Development".

27. The GEF defines a sustainable protected area system as one that: a) effectively protects ecologically viable and climate-resilient representative samples of the country's ecosystems and provides adequate coverage of threatened species at a sufficient scale to ensure their long term persistence; b) has sufficient and predictable financial resources available, including external funding, to support protected area management costs; and c) retains adequate individual and institutional capacity to manage protected areas such that they achieve their conservation objectives.[15]

28. GEF support under this objective will strengthen these fundamental aspects of protected area system sustainability: finance, representation, and capacity building leading to effective management. GEF will continue to promote the participation and capacity building of indigenous peoples and local communities, especially women, in the design, implementation, and management of protected area projects through established frameworks such as indigenous and community conserved areas.[16] GEF will also promote protected area co-management between government and indigenous peoples and local communities where such management models are appropriate.

29. Developing climate-resilient protected area systems remains a challenge because the scientific understanding and technical basis for informed decision-making on adaptation or resiliency measures are in their nascent stages; despite this significant challenge, GEF will initiate support for the development and integration of adaptation and resilience management measures as part of protected area management projects; the first generation of projects of this type were seen in GEF-5.

*Program 1: Improving Financial Sustainability and Effective Management of the National Ecological Infrastructure*

30. GEF began to invest in improving financial sustainability of protected area systems in GEF-4, but system-wide funding gaps remain at the national level in many GEF-eligible countries. Restricted government budgets in many countries have reduced the financial support for protected area management and many are chronically underfunded and understaffed. Thus, new financing strategies for protected area systems are critical to reduce existing funding gaps and improve management. Furthermore, protected area agencies and administrations are often ill-equipped to respond to the commercial opportunities that protected areas provide through the sustainable use of biodiversity. Hence targeted capacity building is also required.

31. Although considerable progress has been made in implementing GEF's protected area finance and management strategy in some countries, the application of the strategy has been uneven regarding the systematic closing of the financing gap at the national level and ensuring that increased revenues are being directed towards more effective management of globally significant habitat. Therefore, in GEF-6, support to improving protected area financial sustainability and effective management will be explicitly directed towards globally significant protected areas within the national system, per the criteria in Annex 3. Projects will identify the

[15] A protected area system could include a national system, a sub-system of a national system, a municipal-level system, or a local level system or a combination of these.

[16] Indigenous and Community Conserved Areas are natural sites, resources and species' habitats conserved in voluntary and self-directed ways by indigenous peoples and local communities.

protected areas to which increased funding will be directed to improve management as a result of the GEF investment while recognizing that a proportion of any revenue increase will be absorbed by system-level administration and management costs.

32. The GEF-6 strategy prioritizes the development and implementation of comprehensive, system-level financing solutions. Previous GEF projects have too often been focused on business plans and strategy development, with minimal project resources or time dedicated to actual implementation of the financing strategies. In addition, experience in the portfolio since GEF-4 has demonstrated the need for a long-term plan for reducing the funding gap for protected area management, thus, individual GEF projects must be part of a larger sustainable finance plan and context, and countries may require a sequence of GEF project support over a number of GEF phases.

33. GEF-supported interventions will use tools and revenue mechanisms that are responsive to specific country situations (e.g., conservation trust funds, systems of payments for environmental services, debt-for-nature swaps, economic valuation of protected area goods and services, access and benefit sharing agreements, etc.) and draw on accepted practices developed by GEF and others. GEF will also encourage national policy reform and incentives to engage the private sector (concessions, private reserves, etc.) and other stakeholders to improve protected area financial sustainability and management.

*Program 2: Nature's Last Stand: Expanding the Reach of the Global Protected Area Estate*

34. TEEB noted that protected areas provide ecosystem services worth more than the costs, including the opportunity costs, of setting up and managing those areas. Nevertheless, the time window for expansion of the protected area estate to bring under-represented ecosystems and threatened species under protection is limited and a sense of urgency remains as land-use pressure increases and populations expand.[17] In many countries, opportunities for expansion of the protected area estate may lie in IUCN categories IV-VI, thus placing increasing importance of using protected areas to promote sustainable use of biodiversity.

35. This program will contribute to the achievement of Aichi Target 11 to conserve 17% of terrestrial and inland water, and 10% of coastal and marine areas. However, the program will require that protected areas established with GEF support are globally significant, as defined by the criteria in Annex 3. This program, will allow for expansion of the estate and management of these new sites. Projects will be expected to link plans for expansion with the associated financing strategies supported through Program One, as has been the practice in GEF-5.

36. Only about 2.35 million $km^2$, 0.65% of the world's oceans and 1.6% of the total marine area within Exclusive Economic Zones, are currently protected.[18] The GEF will continue to address this disparity through investments to increase the representation of globally significant marine ecosystems in protected area systems. GEF will support efforts to address the marine

[17] TEEB (2010) The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB.

[18] Assessing progress towards global marine protection targets: shortfalls in information and action. Louisa J. Wood, Fish Lucy, Laughren Josh, Pauly Daniel, 2008, Volume: 42, Oryx.

ecosystem coverage gap within national level systems through the creation and effective management of coastal and near shore protected area networks, including no-take zones, to conserve and sustainably use marine biodiversity. As per Program 6, a particular focus of expanding marine area coverage will be to increase the area of coral reefs within Marine Protected Areas (MPAs) thus making a direct contribution to the achievement of Aichi Target 10. The program will target the identification and establishment of MPA networks or of large MPAs whose management will help reduce pressures on coral reefs.

37. Many countries have also identified national gaps in the coverage of terrestrial ecosystems and threatened species, which coincide with existing global representation gaps. GEF will support the creation of new protected areas to expand terrestrial and inland water ecosystem representation within protected area systems. Conserving habitat for landraces and wild crop relatives of species of economic importance may also be included as part of this effort to reduce representation gaps as referenced in Program Seven. GEF will also support the creation of new protected areas that improve the coverage of the spatial range of threatened species.

***BD 2: Reduce Threats to Globally Significant Biodiversity***

*Program 3: Preventing the Extinction of Known Threatened Species*[19]

38. Target 12 of the Aichi Biodiversity Targets states that "by 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained." According to IUCN, as of 2013 there were over 20,000 threatened species globally. The main threats to these species involve a) habitat destruction and fragmentation; b) climate change; c) introduction of exotic species; d) pollution; e) over-exploitation of resources; and f) hunting, poaching, illegal trade of endangered species. Among many illustrative examples are the Chinese giant salamander (*Andrias davidianas*) previously widely distributed in China but now almost completely wiped out due to over-exploitation as food, and the leatherback sea turtle (*Demochelys coriacea*) considered Critically Endangered due to the theft of eggs, illegal hunting, loss of nesting habitat and the ingestion of plastic debris. While other GEF programs actively address many of these threats, additional effort is required to address hunting, poaching and illegal trade of endangered species in particular.

39. Illegal trade in wildlife and wildlife parts is an emerging driver of biodiversity loss. The problem is particularly acute in Africa, where iconic mammals are under siege. Over the past several years, elephant and rhino populations have fallen as poachers slaughter them for their tusks and horns to be sold on the black market, mainly in Asia (see Annex 4). The impact of the loss of the largest terrestrial mega-vertebrates still roaming the planet goes beyond their enormous intrinsic value. First, protected areas devoid of elephants and rhinos will face increased opportunity costs brought about by reduced tourism revenue and result in greater pressure to convert protected areas to alternative land-uses that do not support biodiversity. Second, poaching is an insidious activity that weakens institutions and governance systems that are essential for effectively managed protected area systems. In addition, poaching at the current scale undermines the rule of law and economic development generally. Third, elephants and

[19] Critically endangered (CR), Endangered (CN), and Vulnerable (VU) per the IUCN Red List.

rhinos are keystone species that maintain the balance of other species in the ecological community. The richest wildlife communities in Africa are found where woodland and savanna ecosystems meet and become interspersed with each other. Elephants in particular are one of the most important agents influencing the dynamics of that mixture, and their activities generally increase the overall biological diversity of their habitat. While rhinos are not as robust environmental engineers as elephants, they also play an important role in opening up pathways and seed dispersal avenues in dense thickets that are otherwise impenetrable to antelope and other species. In addition, rhino can add significantly to the heterogeneity of the system and increase biodiversity by making available new ecological niches, such as grazing areas.[20]

40. Armed militias are using increasingly sophisticated communication technologies, weapons, and transport that are overwhelming the capacity of Governments to stop them. Sharp increases in the incidences of poaching have resulted in a call by national and international organizations to increase efforts to stop poachers that threaten not only wildlife but also humans while undermining the economic development that wildlife-based tourism brings to rural communities and national governments. Of equal importance is the need to tackle the illegal trafficking of and demand for these products in the markets of Asia and elsewhere, including local markets.

41. This program will address both supply and demand aspects of poaching to build monitoring and enforcement capacity and using social media, education, and awareness-raising to staunch the demand for these products and pressure Governments to improve enforcement of existing laws.

42. Within the context of the CBD and Aichi Target 12, GEF will support strengthening decision making processes including legislation and its implementation, strategic planning, and capacity of national agencies in Africa engaged in reducing poaching and illegal trade of tusks, horns, and associated by-products. Support will include building the capacity of environmental law enforcement agencies and the judiciary to reduce poaching inside and outside of the protected area system and improving border enforcement through cross-sectoral collaboration. GEF will also support the preparation of action plans where governments commit to an adequate budget for their implementation, effectively contributing to the sustainability of these activities. GEF will also support efforts to increase cooperation within and between law enforcement agencies and relevant international organizations and to mobilize political support for environmental law enforcement.

43. Perhaps most importantly, efforts must be made to reduce consumer demand for illegally traded wildlife by raising awareness of the scale and impacts of illegal wildlife trade on biodiversity and the environment, livelihoods, and human health, its links to organized crime, and the availability of sustainable alternatives. The erosion of the rule of law and the use of illegal trade to finance conflict impacts disproportionately on women and children who are most affected by conflict and violence, loss of livelihoods and crime. GEF will support activities to catalyze high-level political will to fight wildlife trafficking, and secure the shared commitment

[20] Waldram, M. 2005. "The Ecological Effects of Grazing by the White Rhino at a landscape scale.", University of Capetown, 224 p.

of government (at national and local levels), private land owners, local communities, and international stakeholders.

44. The program will make a concerted effort to respond to the threat of extinction of species that are critical for the ecological and economic sustainability of many protected areas in sub-Saharan Africa. This will not preclude the submission of proposals from other countries or regions where poaching and illegal trade poses an imminent danger to a threatened species. For example, wildlife poaching and illegal trade in Eurasia, including Asia, Russia, and Central Asia, is also increasing dramatically. The demand for high-value wildlife products in Asian markets has helped fuel a dramatic upsurge of poaching of Asian elephants and rhinos, as well as tigers and other wildlife. GEF will complement anti-poaching work in Africa through a similar array of interventions at source sites for rhino and elephants and other wildlife in Asia. Efforts will include:

(a) strengthening national legislation, institutions, and law enforcement to reduce poaching;

(b) strengthening science-based wildlife monitoring, education and awareness; and;

(c) reducing demand for illegal wildlife products.

45. This program will be developed and implemented as a pilot to best evaluate how GEF can engage with the relevant stakeholders, forge new partnerships, and deliver financial resources and the technical assistance required when addressing illegal trade of wildlife and other species. Lessons learned from Program Three will provide insights for possible future GEF investments addressing threats to threatened species.

*Program 4: Prevention, Control, and Management of Invasive Alien Species*

46. Invasive alien species (IAS) are non-native organisms that cause, or have the potential to cause harm to the environment, economy and human health. The globalization of trade, travel, and transport is greatly increasing the rate at which IAS move around the world, as well as the diversity and number of species being moved.

47. IAS can exert a heavy economic toll on national governments, industries, and the private sector. For example, the estimated damage from invasive species worldwide totals more than $1.4 trillion or 5% of the global economy.[21] IAS can impact human health through disease epidemics, and pathogens and parasites may themselves be IAS or may be introduced by invasive vectors.

48. Despite the various COP decisions identifying the need for Parties to address IAS as a priority biodiversity management problem, only 11 projects focused on IAS have been submitted for funding to GEF in the past 20 years and only one project in the first three years of GEF-5. These national and regional projects have benefited 30 countries, including 20 island states and

[21] Pimentel, D., McNair, S., Janecka, J., Wightman, J., Simmonds, C., O'Connell, C., Wong, E., Russel, L., Zern, J., Aquino, T. and Tsomondo, T. 2001. Economic and environmental threats of alien plant, animal, and microbe invasions. Agriculture, Ecosystems and Environment 84: 1-20.

two continental countries that invested in IAS management in island archipelagos under their jurisdiction.

49. Islands are particularly susceptible to the impacts of IAS. Islands are recognized as having exceptionally high numbers of endemic species, with 15% of bird, reptile and plant species on only 3% of the world's land area. The conservation significance of islands is highlighted by global analyses showing that 67% of the centers of marine endemism and 70% of coral reef hotspots are centered on islands.

50. The isolated nature of islands can also provide some advantages in efforts to minimize the spread and impact of IAS in a cost-efficient manner. Terrestrial and freshwater IAS have difficulty colonizing islands on their own accord. Furthermore, the contained nature and relatively small size of islands enables the implementation of cost-effective response measures to prevent introductions, and to control and manage IAS that become established. Therefore, during GEF-6 this program will focus on island ecosystems. This focus is driven not only by programming demand, but by an ecological imperative: IAS are the primary cause of species extinctions on island ecosystems and if not controlled can degrade critical ecosystem services on islands such as the provision of water. The focus also responds to the opportunity offered by the stronger interest to advance IAS management on the part of island states and countries with island archipelagos, and the opportunity that island ecosystems provide to demonstrate success in addressing the problem of IAS. Such success may in turn generate greater attention and interest in the comprehensive pathways management approach being promoted under this program.

51. GEF will support the implementation of comprehensive prevention, early detection, control and management frameworks that emphasize a risk management approach by focusing on the highest risk invasion pathways. Targeted eradication will be supported in specific circumstances where proven, low-cost, and effective eradication would result in the extermination of the IAS and the survival of globally significant species and/or ecosystems. While the program will focus on island ecosystems and will strongly engage with island states to advance this agenda, projects submitted by continental countries that address IAS management through the comprehensive pathways approach outlined above will also be supported.

*Program 5: Implementing the Cartagena Protocol on Biosafety*

52. The Cartagena Protocol on Biosafety (CPB) seeks to ensure an adequate level of protection in the field of the safe transfer, handling, and use of living modified organisms resulting from modern biotechnology that may have adverse effects on biological diversity. While rooted in the precautionary approach, the CPB recognizes modern biotechnology as having great potential for the promotion of human well-being, particularly in meeting critical needs for food, agriculture, and health care. The Protocol sets the parameters to maximize the benefit that biotechnology has to offer, while minimizing the possible risks to the environment and to human health.

53. GEF's strategy to build capacity to implement the CPB prioritizes the implementation of activities that are identified in country stock-taking analyses and in the COP guidance to the GEF, in particular the key elements in the recently adopted framework and action plan for capacity building for effective implementation of the CPB at the sixth COP serving as the

Meeting of the Parties to the CPB (COP-MOP-6) and the recently adopted Strategic Plan for Biosafety, 2011-2020 agreed at COP-MOP 6. By the end of GEF-5, as many as 64 countries will have received support for implementation of their National Biosafety Frameworks (NBFs); however, another 71 eligible countries have yet to request support to implement their NBFs. GEF-6 will provide the opportunity for these countries to seek support for these initial phases of basic capacity building.

54. The implementation of National Biosafety Frameworks in these remaining countries will be undertaken when the characteristics of the eligible country, as assessed in the stock-taking analysis, recommend a national approach for the implementation of the CPB in that country. GEF will provide support to eligible countries through regional or sub-regional projects when there are opportunities for cost-effective sharing of limited resources and for coordination between biosafety frameworks to support CPB implementation. GEF experience has shown that these kinds of approaches are effective where stock-taking assessments support the potential for coordinating biosafety frameworks, interchange of regional expertise, and capacity building in common priority or thematic areas to develop the capacities of groups of countries lacking competences in relevant fields.

55. The GEF will support thematic projects addressing some of the specific provisions of the Cartagena Protocol. These projects should be developed at the regional or sub-regional level and built on a common set of targets and opportunities to implement the protocol beyond the development and implementation of NBFs.

56. The GEF will support the ratification and implementation of the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the CPB.

***BD 3: Sustainably Use Biodiversity***

*Program 6: Ridge to Reef+: Maintaining Integrity and Function of Globally Significant Coral Reef Ecosystems*

57. Coral reefs cover only 0.2% of the ocean's floor, but they contain 25% of all marine species. For many countries, coral reef ecosystems are critical to fisheries, tourism, and coastal protection, and offer opportunities for other kinds of exploitation such as bio-prospecting, fish aquaria, and jewellery. TEEB estimated that coral reef ecosystems provide society with living resources and services worth about $375 billion each year.

58. Despite their economic value, coral reef ecosystems are threatened by large disturbances. The most recent survey (2008) conducted by the Global Coral Reef Monitoring Network concluded that 19% of global coral reefs are unlikely to recover, 15% are in a critical stage (e.g., suffered a bleaching event, some mortality), and 20% are threatened by local activity. The combination of local (e.g., over-exploitation, physical damage), regional (e.g. pollution and sedimentation runoff from the adjacent watersheds), and global threats (e.g., ocean warming and acidification), make coral reef ecosystems increasingly susceptible to disturbance or damage.

59. Overfishing is the most important local threat, affecting more than 55% of the world's coral reef ecosystem; coastal development and watershed-based pollution each threaten about 25%; and marine-based pollution and damage from ships threaten about 10%. Annex 5 provides

an overview of the status of coral reef ecosystems and threats in each of five major coral reef regions.

60. Because coral reef resilience to bleaching and other stressors can be improved by a balanced biological and functional diversity with sufficient species interactions, the program will prioritize working in coral reef ecosystems that fulfill the following criteria:

(a) Globally significant source population (site is responsible for the persistence of a significant proportion of global population of coral reef); and

(b) Bioregionally restricted coral reef (site is responsible for persistence of a significant proportion of rare coral reef species or important for the life history of a coral reef ecosystem).

61. This program will support the development of the three inter-dependent components outlined below that are focused on threat reduction and sustainable use and that complement the investments in Marine Protected Areas under Program One and Two.

62. The GEF will support increasing the area of coral reefs situated within MPAs. An important spatial factor for coral reef resilience is the connectivity among and within coral reefs. Therefore, the development of MPA networks or of large MPAs will be targeted. Programs 1 and 2 will prioritize this expansion and secure resources for the management of these new areas.

63. GEF will support the development, adoption and enforcement of policy and regulatory frameworks and legislation to mitigate marine-based pollution and damage to coral reef ecosystems. GEF will also support national and international trade regulations for reef products, e.g., aquarium fish, corals, and shells. This could include support to capacity building and encouraging certification and monitoring systems.

64. GEF will support the implementation of integrated coastal management that better addresses local marine pressures on coral reef ecosystems. This will include support for the development of community-level rights-based management areas at the boundaries of MPAs. There are many different types of systems of property rights and different ways in which these are used to manage small scale near-shore fisheries. Property rights in these fisheries vary greatly in terms of their security (or quality of title), durability (permanence), transferability, and exclusivity. These four characteristics are the basis for the legal empowerment that comes with rights based approaches to fisheries management. In addition, holders of property rights can also vary. Women have limited property rights and that significantly impacts their ability to participate in developing sustainable small scale fisheries, therefore, using a gender perspective will be critical to improve marine conservation and fisheries management. Under the GEF strategy, Fisheries Right Based Management refers to any system of allocating fishing rights to fishers, fishing vessels, enterprises, cooperatives or fishing communities that ensures the sustainable management of the targeted marine resource and its ecosystem. The income generated by the payment for access to the rights-based management areas will be used to promote coral reef ecosystem conservation and sustainable use.

65. Both within and outside marine management areas, GEF will focus on those actions that enhance coral reef health and resilience at the boundaries of the MPAs, including the application of fisheries management tools (restriction of fishing gear, regulations of fishing grounds and fishing seasons), the implementation of regulations for tourism (zoning, infrastructure development), and shipping (discharge from ships, shipping lanes, infrastructure development).

66. This targeted support to Integrated Coastal Management will address direct pressures on coral reefs (the "+" of the Program), and therefore complement current GEF-funded Ridge to Reef projects which primarily aim to reduce land-based pollution and promote Integrated Water Resources Management.

*Program 7: Securing Agriculture's Future: Sustainable Use of Plant and Animal Genetic Resources*

67. The conservation and sustainable use of the genetic diversity of cultivated plants, domesticated animals, of their wild relatives and of other socio-economically and culturally valuable species, including aquatic, forest, microbial and invertebrate genetic resources, is central to achieving food security and nutrition of a growing world population, improving rural livelihoods, developing more sustainable agriculture practices, and improving ecosystem function and the provision of ecosystem services in production landscapes. As climates and production environments change, in often unpredictable ways, genetic diversity is also essential to providing the necessary adaptability and resilience.

68. Crop and animal genetic diversity in many production systems have eroded significantly. Threats to genetic diversity are associated with the continuing use of unsustainable approaches that drive excessive use of fertilizers and pesticides, pollution of aquifers and waterways, declining levels of groundwater, and mismanagement of soils.

69. Land use changes and fragmentation threaten wild relatives of domestic plants and animals. There has also been significant loss of crop wild relatives (genetic and species diversity) from production and natural ecosystems. Program Two of the biodiversity strategy will provide support to establish protection for Crop Wild Relatives (CWR) in-situ through CWR Reserves. Program One of the biodiversity strategy may generate revenues to support active management of CWR in existing protected areas and in future CWR Reserves.

70. Annex 6 identifies priority genetic reserve locations for wild relatives for 14 major global food crops (finger millet, barley, sweet potato, cassava, banana/plantain, rice, pearl millet, garden pea, potato, sorghum, wheat, faba bean, cowpea and maize).[22] The centers of crop genetic diversity indicated by the enclosed lines are likely to contain other priority sites for other crop gene pools. GEF investment in CWR reserves would focus on these areas; however, support to managing priority CWR reserves mapped and identified at national level that complement global level assessments undertaken by FAO and others would also be eligible if the CWR in question were of global significance.[23]

[22] Second State of the World's Plant Genetic Resources for Food and Agriculture. 2009 FAO, Rome.
[23] A global approach to crop wild relative conservation: securing the gene pool for food and agriculture, 2010, Kew Bulletin, Vol. 65: 561-576. Maxted, Nigel et. al.

71. This program will focus its support on in-situ conservation, through farmer management, which allows continuing evolution and adaptation of cultivated plants and domesticated animals. This approach also meets the needs of rural communities, including indigenous peoples and local communities, especially women, who often depend on agricultural biodiversity for their livelihoods through its contribution to food security and nutrition, medicines, fodder, building materials and other provisioning services as well through support for ecosystem function. Women's participation will be particularly critical in this program, given the primary role that women play in agrobiodiversity management. In-situ conservation in production landscapes helps improve sustainability and resilience. A recent analysis confirmed that agricultural biodiversity played a central role in the strategies adopted by rural communities adapting to climate change[24].

72. GEF will concentrate it support on the sustainable use of plant genetic resources in Vavilov centers of diversity. Results from this program may also generate important co-benefits for the International Treaty on Plant Genetic Resources for Food and Agriculture. GEF will focus on innovations to current production systems and practices that:

(a) Maintain and strengthen different production systems and their elements, including agriculture practices based on local and traditional knowledge, that allow continued evolution and adaptation (adequate population sizes, seed systems, movement of useful materials, and access to ex-situ materials);

(b) Link genetic diversity maintenance to improved food security and economic returns for rural communities and farmers (including local market access and market regulations);

(c) Develop policies, strategies, legislation, and regulations that shift the balance in agricultural production in favor of diversity rich approaches. These include support for the adoption of appropriate fiscal and market incentives to promote or conserve diversity on-farm and across the production landscape;

(d) Strengthen capacity of the agricultural development, extension and research communities and institutions that are needed for in-situ conservation, so that agricultural biodiversity is embedded in sustainable intensification and adaptation to climate change; and

(e) Strengthen the capacities of community and smallholder organizations, and farmers (both men and women) to participate in the identification, development, and implementation of solutions.

*Program 8: Implementing the Nagoya Protocol on Access and Benefit Sharing*

73. The Nagoya Protocol on Access and Benefit Sharing (ABS) provides a legal framework for the effective implementation of the third objective of the Convention on Biodiversity (CBD).

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[24] Dunja Mijatovic, Frederik Van Oudenhoven, Pablo Eyzaguirre, and Toby Hodgkin. 2012, The role of agricultural biodiversity in strengthening resilience to climate change: towards an analytical framework. International Journal of Agricultural Sustainability.

Ninety-two CBD parties have signed and 25 have ratified the Nagoya Protocol.[25] The Protocol will enter into force on the 90th day after the date of deposit of the 50th instrument of ratification, acceptance, approval, or accession.

74. The GEF will support implementation of the Nagoya Protocol using resources from the GEF Trust Fund and, in parallel, from the Nagoya Protocol Implementation Fund (NPIF). The future of the NPIF will be deliberated upon at the next CBD COP to be held after the initiation of the GEF-6 cycle. The successful implementation of ABS at the national level has the potential to make considerable contributions to biodiversity conservation and sustainable use, and thus is relevant to all Aichi Targets and many of the programs presented in the GEF biodiversity strategy. As such, projects developed for funding under other GEF programs will be encouraged to explore the potential and relevance of ABS to contribute to specific project and program objectives. However, given the incipient nature of the thematic area, and the importance that the COP has placed on ABS both in the way guidance is presented to the GEF and the strong emphasis that has been given on capacity building at this stage, this program is presented as a discrete and important element of the GEF biodiversity strategy and thus merits its own program of support.

75. GEF Trust Fund Support. Projects funded under the GEF Trust Fund will support national and regional implementation of the Nagoya Protocol and, if still required, targeted capacity building to facilitate ratification and entry into force of the Protocol. As such, the GEF will support the following core activities to comply with the provisions of the Nagoya Protocol:

(a) Stocktaking and assessment. GEF will support gap analysis of ABS provisions in existing policies, laws and regulations, stakeholder identification, user rights and intellectual property rights, and assess institutional capacity including research organizations.

(b) Development and implementation of a strategy and action plan for the implementation of ABS measures. (e.g. policy, legal, and regulatory frameworks governing ABS, National Focal Point, Competent National Authority, Institutional agreements, administrative procedures for Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT), monitoring of use of genetic resources, compliance with legislation and cooperation on trans-boundary issues); and

(c) Building capacity among stakeholders (including indigenous and local communities, especially women) to negotiate between providers and users of genetic resources. Countries may consider institutional capacity-building to carry out research and development to add value to their own genetic resources and traditional knowledge associated with genetic resources. The GEF will also support the participation in the ABS Clearing-House mechanism as soon as the Clearing-house is operational, including in its piloting.

76. The GEF will also enhance national implementation of the Nagoya Protocol through regional collaboration. Regional collaboration would help build capacity of countries to add

[25] The Nagoya Protocol was adopted by the Parties of the Convention of Biodiversity at the 11th meeting of the Parties on 29th October, 2010 in Nagoya, Japan.

value to their own genetic resources and traditional knowledge associated with genetic resources and avoid duplication of regulatory mechanisms while encouraging intra-regional collaboration. Regional collaboration can also address the financial and human resource constraints faced by small or least developed countries through sharing regulatory and scientific resources.

77. Nagoya Protocol Implementation Fund (NPIF) Support. The primary objective of the NPIF is to facilitate early entry into force and create enabling conditions at national and regional levels for implementation of the Protocol. The NPIF will support opportunities leading to the development and implementation of ABS agreements between providers and users of genetic resources that actively inform national implementation of the Nagoya Protocol. Providers would include Parties to the CBD as well as those stakeholders providing access to resources on the ground, including indigenous peoples and local communities. Users can include Parties of the CBD as well as those interested in the resources including, for example, sectors like the pharmaceutical industry, biotechnology, ornamental horticulture, natural personal care and cosmetics, museums, academic institutions, and research collections.

### *BD 4: Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes/Seascapes and Sectors*

*Program 9: Managing the Human-Biodiversity Interface*

78. Protected areas are the conservation community's most successful management response to conserve and sustainably use biodiversity. However, protected areas do not exist as isolated islands of tranquility where evolutionary processes continue uninterrupted by humans. Rather, protected areas are often located in mixed-use landscapes and seascapes where natural resources are managed or exploited — at times unsustainably — to satisfy human needs for food, water, wood, energy, and minerals. These resource uses often unintentionally degrade biodiversity within and outside protected areas. In addition, production landscapes and seascapes also provide habitat to globally significant biodiversity. Managing the human-biodiversity interface requires additional and innovative approaches that help maintain the integrity of the protected area estate while ensuring persistence of biodiversity in more expansive geographies.

79. GEF has for the past decade worked to embed biodiversity conservation and sustainability objectives in the management of wider production landscapes and seascapes through support to an array of policies, strategies, and practices that engage key public and private sector actors in order to conserve and sustainably use biodiversity. This process, referred to as "biodiversity mainstreaming", has focused primarily on the following suite of activities: a) developing policy and regulatory frameworks that remove perverse subsidies and provide incentives for biodiversity-friendly land and resource use that remains productive but that does not degrade biodiversity; b) spatial and land-use planning to ensure that land and resource use is appropriately situated to maximize production without undermining or degrading biodiversity; c) improving and changing production practices to be more biodiversity friendly with a focus on sectors that have significant biodiversity impacts (agriculture, forestry, fisheries, tourism, extractives); and d) piloting an array of financial mechanisms (certification, payment for environmental services, access and benefit sharing agreements, etc.) to help incentivize actors to change current practices that may be degrading biodiversity.

80. GEF will continue to support these activities during GEF-6 but with a renewed emphasis on ensuring that interventions are spatially targeted and thematically relevant to conserving or sustainably using globally significant biodiversity. Through more careful targeting, support under this program can better deliver multiple conservation outcomes: sustaining biodiversity in the production landscape and seascape which will simultaneously secure the ecological integrity and sustainability of protected area systems. In addition, successful biodiversity mainstreaming in the GEF portfolio has been a long-term process, often requiring multiple and complementary projects that span numerous GEF phases. In order for biodiversity mainstreaming to achieve impacts at the scale necessary to advance the related Aichi Targets, a series of investments by GEF and other donors within a larger-scale planning and management context may be required. Projects in GEF-6 and onward will be required to frame GEF's support to biodiversity mainstreaming accordingly to increase the likelihood of success and impact.

81. This program will also support ecosystem restoration in specific locations where restoration is deemed essential to help ensure the persistence of globally important biodiversity in the production landscape and seascape; particularly in areas adjacent to protected areas.

*Program 10: Integration of Biodiversity and Ecosystem Services into Development and Finance Planning*

82. The Millennium Ecosystem Assessment provided a conceptual framework that facilitated a comprehensive understanding of the values of biodiversity to society beyond its mere existence value (see Annex 7). Numerous organizations and projects have used this conceptual framework to estimate the value of biodiversity to society through the goods and services it provides, including the Wealth Accounting and the Valuation of Ecosystem Services (WAVES) partnership, The Natural Capital Project, TEEB, the LAC Biodiversity Superpower initiative and numerous GEF-funded projects. In addition, the CBD Strategic Plan identifies Aichi Target 2, to which this program will make a considerable contribution, as critical target to addressing a key underlying driver of biodiversity loss.

83. Although a number of approaches are currently being used to recognize, demonstrate, and capture the value of biodiversity and ecosystem services, a mismatch remains between valuation and development policy and financing. Valuation is not leading to the development of policy reforms needed to mitigate the drivers of biodiversity loss and encourage sustainable development through the better management of biodiversity and natural capital, nor is it triggering changes in the use and scale of public and private finance flows on the scale necessary to address threats. Policy and finance reforms must accompany valuation so that the finance and development decisions that impact natural ecosystems and biodiversity include incentives and price signals that result in more cost effective and sustainable biodiversity management.

84. This program will complement the work undertaken in Program Nine and will pilot national-level interventions that link biodiversity valuation and economic analysis with development policy and finance planning. The outcome from these projects will be biodiversity valuation that informs policy instruments and fiscal reforms designed to mitigate perverse incentives leading to biodiversity loss. These may be linked to larger policy reforms being undertaken as part of the development policy dialogue, development policy operations, or other efforts. It will also include specific support to reform finance flows, for instance through public

expenditure reviews, and to operationalize innovative finance mechanisms such as payments for ecosystem services, habitat banking, aggregate offsets, and tradable development rights and quotas.

### *Biodiversity Focal Area Set-Aside*

85. Countries will be able to access the focal area set-aside funds (FAS) to implement enabling activities. Enabling activity support could be provided for all GEF-eligible countries to produce their 6th National Report to the CBD as well as national reporting obligations under the Cartagena Protocol and Nagoya Protocol that will be identified during upcoming COP-MOPs and that will come due during the GEF-6 period.

86. The remaining funds in FAS will be used for a variety of priorities. The first is to contribute to the Sustainable Forest Management program and to the following integrated approaches to be piloted in GEF-6: Taking Deforestation out of Commodity Supply Chains, and Fostering Sustainability and Resilience for Food Security in Africa. The FAS will also complement biodiversity investments at the national level through participation in global, regional or multi-country projects that meet some or all of the following criteria:

(a) support priorities identified by the COP of the CBD and in particular the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets;

(b) relevant to the objectives and programs of the GEF-6 biodiversity strategy;

(c) high likelihood that the project will have a broad and positive impact on biodiversity;

(d) potential for replication;

(e) global demonstration value;

(f) potential to catalyze private sector investment in biodiversity conservation and sustainable use; and

(g) contribute to global conservation knowledge through formal experimental or quasi-experimental designs that test and evaluate the hypotheses embedded in project interventions.

### Biodiversity Resource Envelope

87. The biodiversity strategy is based on a resource envelope of $1.24 billion that will be used to support implementation of the biodiversity strategy and provide contributions to the GEF-6 pilots on integrated approaches. Details are presented in Table 1 below.

## BD Table 1 - Focal Area Objectives and Indicative Allocations per Program

| Focal Area Objective | Focal Area Programs | Indicative Allocation Status-quo Scenario ($ million) | Indicative Allocation Status-quo Plus Scenario ($ million) |
|---|---|---|---|
| Objective One: Improve sustainability of protected area systems | Program 1: Improving Financial Sustainability and Effective Management of the National Ecological Infrastructure | 125 | 125 |
| | Program 2: Nature's Last Stand: Expanding the Reach of the Global Protected Area Estate | 125 | 275 |
| Objective Two: Reduce threats to globally significant biodiversity | Program 3: Reducing Poaching and Illegal Trafficking of Threatened Species | 80 | 80 |
| | Program 4: Prevention, Control and Management of Invasive Alien Species | 50 | 50 |
| | Program 5: Implementing the Cartagena Protocol on Biosafety (CPB) | 30 | 30 |
| Objective Three: Sustainably use biodiversity | Program 6: Ridge to Reef+: Maintaining Integrity and Function of Coral Reef Ecosystems | 100 | 100 |
| | Program 7: Securing Agriculture's Future: Sustainable Use of Plant and Animal Genetic Resources | 75 | 75 |
| | Program 8: Implement the Nagoya Protocol on ABS | 50 | 50 |
| Objective Four: Mainstream biodiversity conservation and sustainable use into production landscapes and seascapes and sectors | Program 9: Managing the Human-Biodiversity Interface | 310 | 370 |
| | Program 10: Integration of Biodiversity and Ecosystem Services into Development & Finance Planning | 50 | 50 |
| Focal Area Set-Aside (Convention obligations, global and regional programs, including Integrated Approaches, and Sustainable Forest Management Program) | | 245 | 245 |
| **Total Biodiversity** | | **1,240** | **1,450** |

**Results Framework**

**Goal:**

(a) Maintain globally significant biodiversity and the ecosystem goods and services it provides to society.

**Impacts:**[26]

(a) Biodiversity conserved and habitat maintained in national protected area systems.

(b) Conservation and sustainable use of biodiversity in production landscapes and seascapes.

**Indicators:**

(a) Intact vegetative cover and degree of fragmentation in national protected area systems measured in hectares as recorded by remote sensing.

(b) Intact vegetative cover and degree of fragmentation in production landscapes measured in hectares as recorded by remote sensing.

(c) Coastal zone habitat (coral reef, mangroves, etc.) intact in marine protected areas and productive seascapes measured in hectares as recorded by remote sensing and, where possible, supported by visual or other verification methods.

**Corporate Level Outcome Targets:** [27]

(a) 300 million hectares of landscapes and seascapes under improved biodiversity management.

**Gender Indicators:**

(a) Focal Area projects will use and incorporate GEF Gender Indicators, which will be monitored and aggregated at the Focal Area portfolio and Corporate levels. [28]

[26] Long term effects of the portfolio investment, target area for impacts would be 300 million hectares.

[27] The achieved short-term effects of the portfolio's outputs.

[28] Refer to the core GEF Gender Indicators identified under the gender section of the Strategic Positioning Paper for GEF-6 replenishment. The five Gender Indicators are:
1. Percentage of projects that have conducted gender analysis during project preparation.
2. Percentage of projects that have incorporated gender sensitive project results framework, including gender sensitive actions, indicators, targets, and/or budget.
3. Share of women and men as direct beneficiaries of project.
4. Number of national/regional/global policies, legislations, plan, and strategies that incorporates gender dimensions (e.g. NBSAP, NAPA, NAP, TDA/SAP, etc).
5. Percentage of Project Implementation Reports (PIR), Mid-term Evaluation (MTE) and Terminal Evaluation Reports (TER) that incorporate gender equality and women's empowerment and assess results/progress.
Projects will use gender-sensitive indicators and sex-disaggregated data, and it will be systematically recorded, reported and integrated into adaptive management responses at the project level. GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in projects, including through Annual Monitoring Review and Learning Missions.

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| Objective 1:<br>Improve sustainability of protected area systems | Program 1: Improving Financial Sustainability and Effective Management of the National Ecological Infrastructure | Outcome 1.1. Increased revenue for protected area systems and globally significant protected areas to meet total expenditures required for management.<br><br>Indicator 1.1: Funding gap for management of protected area systems and globally significant protected areas.<br><br>Outcome 1.2: Improved management effectiveness of protected areas.<br><br>Indicator 1.2: Protected area management effectiveness score. |
| | Program 2: Nature's Last Stand: Expanding the Reach of the Global Protected Area Estate | Outcome 2.1 Increase in area of terrestrial and marine ecosystems of global significance in new protected areas and increase in threatened species of global significance protected in new protected areas.<br><br>Indicator 2.1 Area of terrestrial and marine ecosystems and number of threatened species.<br><br>Outcome 2.2: Improved management effectiveness of new protected areas.<br><br>Indicator 2.2: Protected area management effectiveness score. |
| Objective 2: Reduce threats to globally significant biodiversity | Program 3: Preventing the Extinction of Known Threatened Species | Outcome 3.1: Reduction in rates of poaching of rhinos and elephants and other threatened species and increase in arrests and convictions (baseline established per participating country)<br><br>Indicator 3.1: Rates of poaching incidents and arrests and convictions. |
| | Program 4: Prevention, Control and Management of Invasive Alien Species | Outcome 4.1 Improved management frameworks to prevent, control, and manage invasive alien species (IAS).<br><br>Indicator 4.1: IAS management framework operational score.<br><br>Outcome 4.2 Species extinction avoided as a result of IAS management (if applicable)<br><br>Indicator 4.2 Sustainable populations of critically threatened species. |
| | Program 5: Implementing the Cartagena Protocol on Biosafety (CPB) | Outcome 5.1 Adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health (both women and men), and specifically focusing on transboundary movements<br><br>Indicator 5.1: National biosafety decision-making systems operational score. |

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| Objective 3: Sustainably use biodiversity | Program 6: Ridge to Reef+: Maintaining Integrity and Function of Coral Reef Ecosystems | Outcome 6.1. Integrity and functioning of coral reef ecosystems maintained and area increased.<br><br>Indicator 6.1 Area of coral reef ecosystems that maintain or increase integrity and function as measured by number of coral species and abundance both outside and inside MPAs. |
| | Program 7: Securing Agriculture's Future: Sustainable Use of Plant and Animal Genetic Resources | Outcome 7.1 Increased genetic diversity of globally significant cultivated plants and domesticated animals that are sustainably used within production systems.<br><br>Indicator 7. 1. Diversity status of target species. |
| | Program 8: Implement the Nagoya Protocol on ABS | Outcome 8.1: Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the provisions of the Nagoya Protocol<br><br>Indicator 8.1: National ABS frameworks operational score. |
| Objective 4: Mainstream biodiversity conservation and sustainable use into production landscapes and seascapes and production sectors | Program 9: Managing the Human-Biodiversity Interface | Outcome 9.1 Increased area of production landscapes and seascapes that integrate conservation and sustainable use of biodiversity into management.<br><br>Indicator 9.1 Production landscapes and seascapes that integrate biodiversity conservation and sustainable use into their management preferably demonstrated by meeting national or international third-party certification that incorporates biodiversity considerations (e.g. FSC, MSC) or supported by other objective data.<br><br>Outcome 9.2 Sector policies and regulatory frameworks incorporate biodiversity considerations.<br><br>Indicator 9.2 The degree to which sector policies and regulatory frameworks incorporate biodiversity considerations and implement the regulations. |
| | Program 10: Integration of Biodiversity and Ecosystem Services into Development & Finance Planning | Outcome 10.1 Biodiversity values and ecosystem service values integrated into accounting systems and internalized in development and finance policy and land-use planning and decision-making.<br><br>Indicator 10. 1 The degree to which biodiversity values and ecosystem service values are internalized in development, finance policy and land-use planning and decision making. |

## Annex I. Relationship between Strategic Plan for Biodiversity 2011-2020 and GEF Biodiversity Objectives and Programs

| **Relationship between Strategic Plan for Biodiversity 2011-2020 and GEF Biodiversity Objectives and Programs** | | |
|---|---|---|
| Strategic Plan Goals and Associated Aichi Targets | GEF Biodiversity Objectives and Program Alignment | Other Aichi Targets Impacted[29] |
| Goal A. Address underlying causes | GEF Objective 4: Mainstream biodiversity | |
| 1) Raise awareness of biodiversity values | BD Programs 1-10 (integration into project design and implementation as appropriate and useful) | All targets |
| 2) Integrate biodiversity and development | BD Programs 9 and 10 | All targets |
| 3) Address incentives harmful to biodiversity | BD Program 10 | 1,2,4,5,6,7,8,9,10,11,12 |
| 4) Sustainable production and consumption | BD Program 9 | 1,2,4,5,6,7,8,9,10,11,12,1314,15 |
| Goal B. Reduce direct pressures | GEF Objective 1: Improve Sustainability of Protected Area Systems<br>GEF Objective 2: Reduce threats to biodiversity<br>GEF Objective 3: Sustainably Use Biodiversity<br>GEF Objective 4: Mainstream biodiversity | |
| 5) Halve rate of habitat loss | BD Programs 1, 2, 9 | 6,7,8,11,12,13,14,15,16 |
| 6) Achieving sustainable fisheries | BD Program 2 and 6 | 4,5,7,8,10,11,12,14 |
| 7) Sustainable agriculture, aquaculture, forestry | BD Program 7 and 9 | 4,5,6,8,9,10,11,12,13,14,15, 16,18 |
| 8) Reduce pollution to safe levels | | 4,5,6,7,10,11,12,14,15 |
| 9) Achieve effective IAS management | BD Program 4 | 5,6,7,9,10,11,12,13,14 , 15 |
| 10) Minimize pressures on reefs and other vulnerable ecosystems | BD Program 2 and 6 | 6,12,13 |

[29] Report of the High Level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020, UNEP/CBD/COP/11/14/Add2*

| **Relationship between Strategic Plan for Biodiversity 2011-2020 and GEF Biodiversity Objectives and Programs** | | |
|---|---|---|
| Strategic Plan Goals and Associated Aichi Targets | GEF Biodiversity Objectives and Program Alignment | Other Aichi Targets Impacted[29] |
| Goal C. Enhance state of biodiversity | GEF Objective 1: Improve Sustainability of Protected Area Systems<br>GEF Objective 2: Reduce threats to biodiversity<br>GEF Objective 3: Sustainably Use Biodiversity<br>GEF Objective 4: Mainstream biodiversity | |
| 11) Expansion of Protected Area Networks and Effective Management | BD Programs 1,2,7, and 9 | 1,2,5,6,7,8,10,12,14,15 |
| 12) Prevent extinctions and improve status of threatened species | BD Programs 1, 2, 3,4, 5, and 9 | 5,11, 13 |
| 13) Maintain gene pool of plant and animal genetic resources | BD Programs 1 and 7 | 2,7,12 |
| Goal D. Enhance benefits of ecosystem services | GEF Objectives 1,2,3, and 4 | |
| 14) Restore and safeguard essential ecosystem services | BD Programs 2 and 9 | 5,10,11,12,13 |
| 15) Enhance ecosystem resilience and carbon stocks | BD Programs 1, 2, 9 and 10 | 5,11,12,13 |
| 16) Achieve entry into force of ABS Protocol | BD Program 8 | 1,2,4,5, 10, 11, 12, 13, 18, 19 |
| Goal E: Enhance implementation | Integrated throughout GEF Programming | |
| 17) Implementation of revised NBSAPs | NBSAP development funded during GEF-5. Implementation supported by all GEF-6 BD programs. | All targets |
| 18) Traditional knowledge | Integrated into project design and implementation as appropriate in all GEF-6 BD programs. | 7,13,14,15,16,19 |
| 19) Knowledge-base and science applied | Integrated into project design and implementation as appropriate in all GEF-6 BD programs. | All targets |
| 20) Resource mobilization | GEF will identify, make use of, and report on all financing leveraged through GEF BD programs and integrated approaches piloted in GEF-6. | All targets |

## Annex II. Contributions to Achieving the Strategic Plan for Biodiversity 2011-2020 by the GEF Integrated Approaches and other GEF Focal Areas

| **Contributions to Achieving the Strategic Plan for Biodiversity 2011-2020 by the GEF Integrated Approaches and other GEF Focal Areas** | | |
|---|---|---|
| Strategic Plan Goals and Aichi Targets | GEF Integrated Approaches and Focal Area Alignment | Other Aichi Targets Impacted |
| Goal A. Address underlying causes | | |
| 1) Integrate biodiversity and development | Amazon SFM Program | 5, 10, 12, 14, 15 |
| 2) Address incentives harmful to biodiversity | Commodities Integrated Approach | 1,2,4,5,6,7,8,9,10,11,12 |
| 3) Sustainable production and consumption | Commodities Integrated Approach | 1,2,4,5,6,7,8,9,10,11,12,13,14,15 |
| Goal B. Reduce direct pressures | | |
| 5) Halve rate of habitat loss | Commodities Integrated Approach<br><br>Sustainable Forest Management Program | 6,7,8,11,12,13,14,15,16 |
| 6) Achieving sustainable fisheries | International Waters Focal Area | 4,5,7,8,10,11,12,14 |
| 7) Sustainable agriculture, aquaculture, forestry | Food Security Integrated Approach<br><br>Sustainable Forest Management Program<br><br>Amazon SFM Program | 4,5,6,8,9,10,11,12,13,14,15,16, 18 |
| 8) Reduce pollution to safe levels | Chemicals, International Waters, and Land Degradation Focal Area | 4,5,6,7,10,11,12,14,15 |
| 10) Minimize pressures on reefs and other vulnerable ecosystems | International Waters Focal Area | 6,12 and 13 |
| Goal C. Enhance state of biodiversity | | |
| 11) Expansion of Protected Area Networks and Effective Management | Amazon SFM Program | 1,2,5,6,7,8,10,12,14,15 |
| 12) Prevent extinctions and improve status of threatened species | Amazon SFM Program | 5,11, 13 |
| Goal D. Enhance benefits of ecosystem services | | |
| 14) Restore and safeguard essential ecosystem services | Sustainable Forest Management Program<br><br>Amazon SFM Program<br><br>Commodities Integrated Approach | 5,10,11,12,13 |
| 15) Enhance ecosystem resilience and carbon stocks | Sustainable Forest Management Program<br><br>Amazon SFM Program<br><br>Commodities Integrated Approach | 5,11,12,13 |

***Annex II. Contributions to Achieving the Strategic Plan for Biodiversity 2011-2020 by the GEF Integrated Approaches and other GEF Focal Areas***

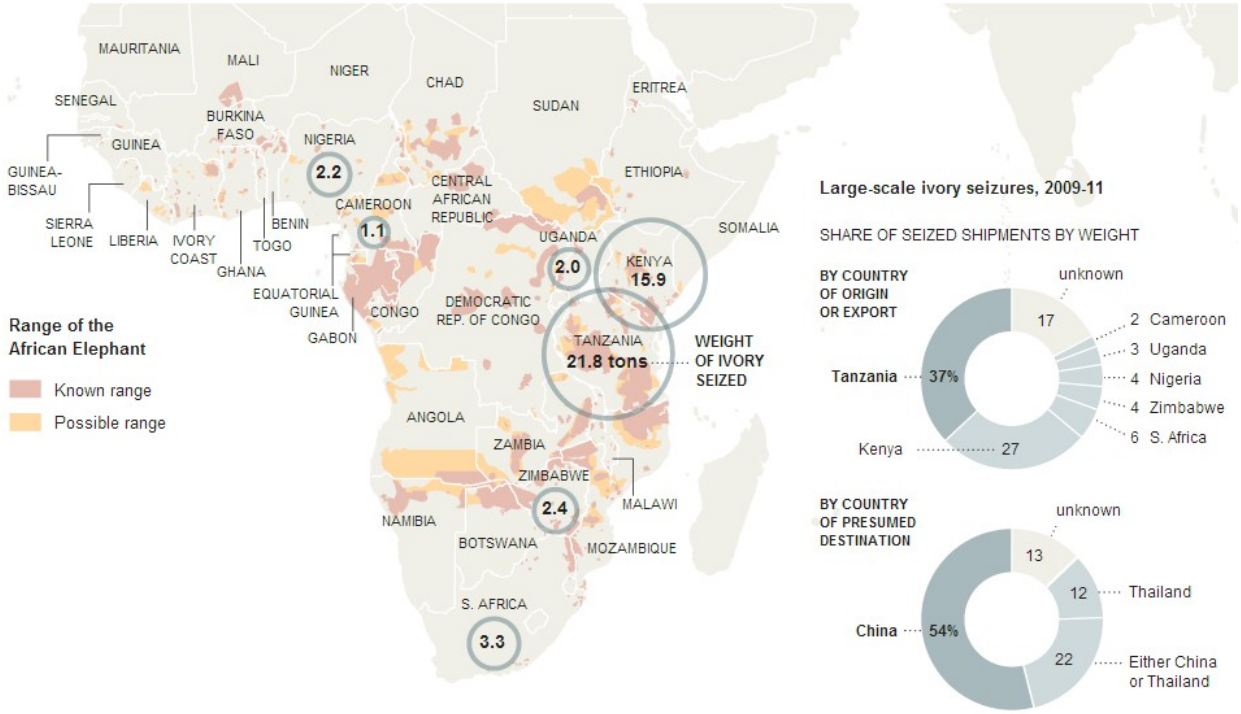
| **Contributions to Achieving the Strategic Plan for Biodiversity 2011-2020 by the GEF Integrated Approaches and other GEF Focal Areas** | | |
|---|---|---|
| Strategic Plan Goals and Aichi Targets | GEF Integrated Approaches and Focal Area Alignment | Other Aichi Targets Impacted |
| Goal E: Enhance implementation | | |
| 17) Implementation of revised NBSAPs | Forest-related implementation support by the SFM program. | All targets |
| 18) Traditional knowledge | Integrated into project design and implementation as appropriate in the SFM program. | Targets 7,13,14,15,16,19 |
| 19) Knowledge-base and science applied | Sustainable Forest Management Program | All targets |
| 20) Resource mobilization | GEF will identify, make use of, and report on all financing leveraged through GEF SFM program and integrated approaches | All targets |

## Annex III. Summary of GEF Criteria for Defining Globally Significant Sites for Biodiversity Conservation[30]

| Criterion | Sub-criteria | Provisional Thresholds for GEF Support |
|---|---|---|
| *Vulnerability*<br><br>Regular occurrence of a globally threatened species (according to the IUCN Red List) at the site | Not applicable | Critically Endangered (CR) and Endangered (EN) Species<br><br>Vulnerable Species (VU) |
| *Irreplaceability*<br><br>Site holds X% of a species' global population at any stage of the species' lifecycle | Restricted-range species | Species with a global range less than50,000 square kilometers<br><br>5% of global population at site |
| | Species with large but clumped distributions | 5% of global population at site |
| | Globally significant congregations | 1% of global population seasonally at site |
| | Globally significant source populations | Site is responsible for maintaining 1% of global population |
| | Bio-regionally restricted assemblages | To be defined |

[30] The global standards for identification of key biodiversity areas are currently under revision through a broad scientific consultation process convened by IUCN's World Commission on Protected Areas/Species Survival Commission Joint Taskforce on Biodiversity & Protected Areas. These will be launched at the 2014 World Parks Congress. In the interim, the criteria and thresholds for key biodiversity area identification as presented above will be applied. It is likely that the great majority of sites meeting these criteria will also be considered key biodiversity areas under the new standard.

## Annex IV. Large Scale Ivory Seizures, 2009-2011

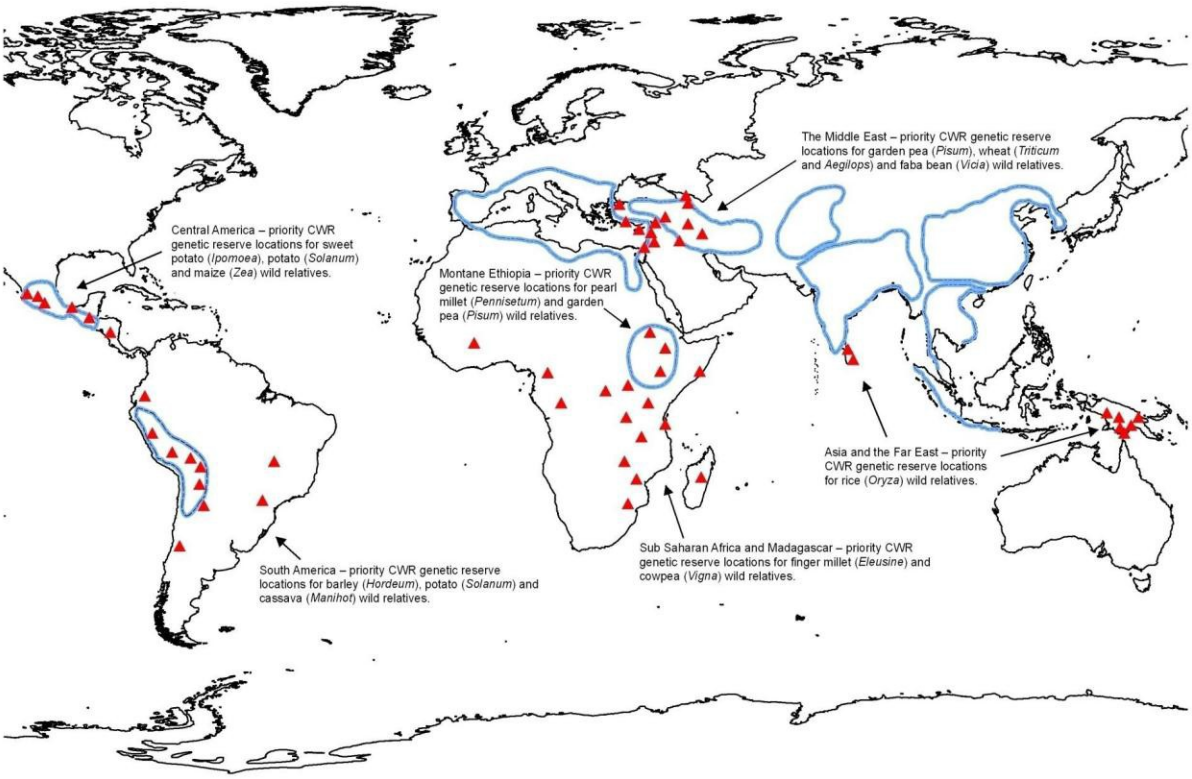



The map appeared in the New York Times, September 13, 2012. Sources of information: Elephant Status Report, Convention on International Trade of Endangered Species (CITES) and Elephant Trade Information Systems (ETIS).

## Annex V. Regional Coverage and Threat Status of Coral Reef Ecosystems

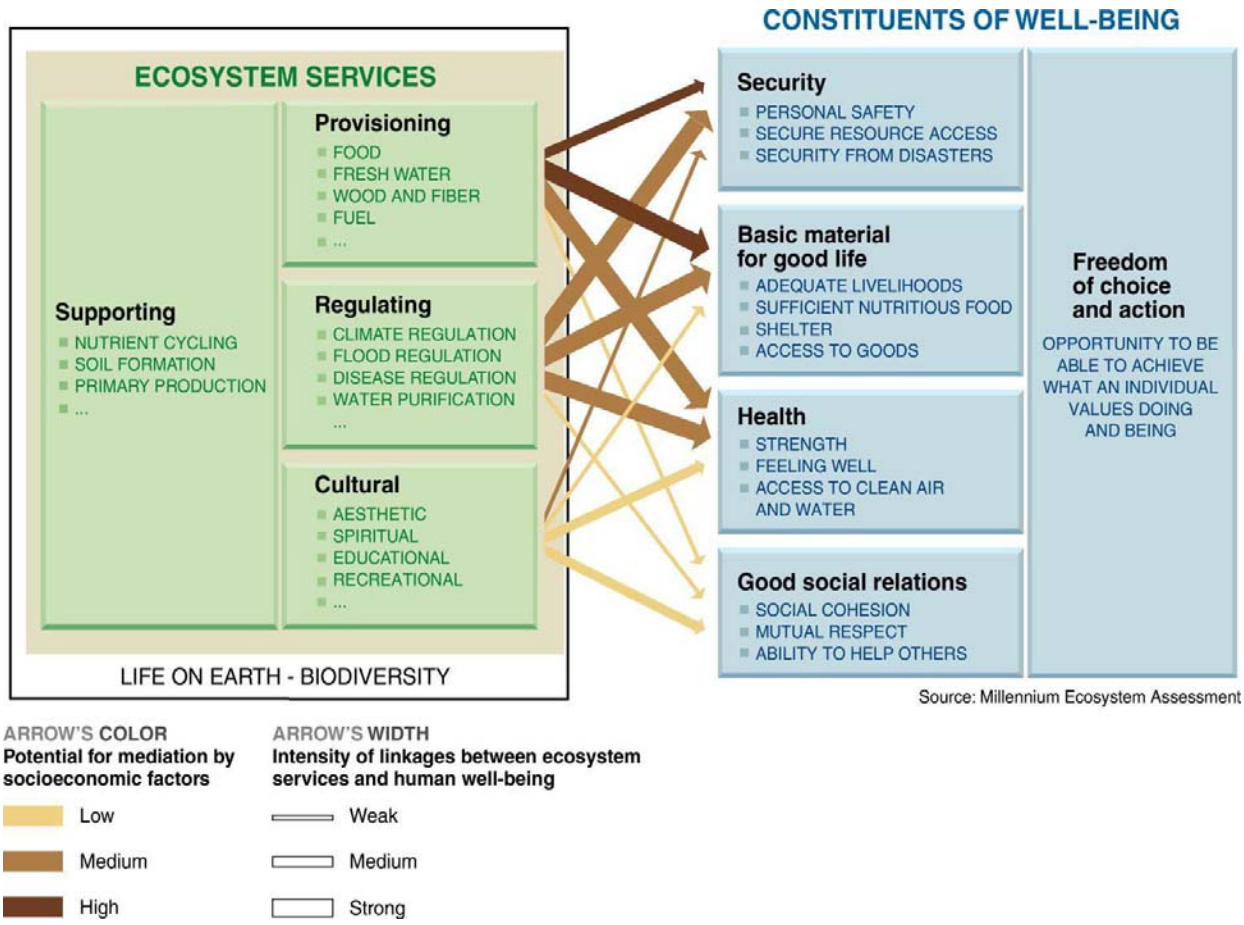
| Region | % of world coral reef | % of Coral Reef threatened | Major threats |
|---|---|---|---|
| Caribbean Region | 10%<br>High level of endemism | 75% | Disease, Overfishing, Tourism, Land-based pollution, Shipping |
| Indian Ocean | 13% | 65% | Overfishing ,Tourism, Land based pollution |
| Pacific (including Eastern part of the Coral Triangle) | 25% | 50% | Overfishing, Tourism, Land-based pollution |
| Middle East | 6%<br>High level of endemism | 70% | Shipping, Marine based pollution, Tourism industry |
| South East Asia (including Western half of the Coral Triangle) | 28%<br>Most extensive and diverse coral reef of the world | 95% | Overfishing, Unregulated aquaculture, Land based pollution |

## Annex VI. Global Priorities for Genetic Reserve Locations[31]




[31] Second State of the World's Plant Genetic Resources for Food and Agriculture. 2009 FAO, Rome.

## Annex VII. Linkages between Ecosystem Services and Human Well-Being



## CLIMATE CHANGE MITIGATION FOCAL AREA STRATEGY

### Background

#### *Status of Climate Change*

1. Climate change presents a significant global challenge to humanity and the biosphere in the 21st century. Atmospheric carbon dioxide ($CO_2$) emission level observations recently exceeded 400 parts per million (ppm) for the first time in the last 65 million years.[32] There is growing awareness that "the climate is moving out of the envelope of natural variability characteristic of the Holocene" and thereby, transgressing Earth's planetary boundary for climate change.[33] To prevent dangerous anthropogenic interference with the climate system, the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) has agreed that actions must be taken to keep global temperature rise below 2 degrees Celsius (2°C) above the preindustrial level. Meeting the 2°C target requires significant efforts to reduce the greenhouse gas (GHG) emissions.

2. Climate change-associated impacts are observed globally on marine and terrestrial ecosystems, and affect water availability, energy supply, food security, infrastructure, and human health, as highlighted in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Changes in marine ecosystem productivity, fisheries, coral reefs, and ocean acidification due to $CO_2$ uptake by oceans are likely. The severity of projected impacts becomes more significant at higher temperatures. About 30% of global coastal wetlands may also be lost with temperature increases above 3.5°C. Hundreds of millions of people may face water shortages. With a 4°C increase, productivity of all cereals decreases in low altitudes, impacting food security. Some irreversible impacts of climate change include increased risks of significant extinctions of 40-70% of assessed species with temperature increases above 3.5°C.[34,35].Of the five direct drivers of ecosystems and biodiversity identified by the Millennium Ecosystem Assessment, two drivers, namely climate change and pollution, showed very rapid increases in the impacts as current trends across all assessed ecosystems types.[36]

3. Recent observations suggest that delayed reductions in GHG emissions significantly constrain opportunities to achieve lower levels of climate change impacts, and increase the risk of severity of impacts. The need for accelerating the efforts to reduce GHG emissions and to adapt to climate change has been more widely recognized. Timing is of the essence to pursue urgent mitigation strategies to limit the GHG emissions and stabilize atmospheric concentrations.

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[32] National Oceanic and Atmospheric Administration (NOAA), Earth System Research Laboratory (2013). US Department of Commerce, USA. Accessed at: http://www.esrl.noaa.gov/gmd/webdata/ccgg/trends/co2_weekly_mlo.pdf

[33] Rockström, J., et al. (2009). Planetary boundaries: exploring the safe operating space for humanity. Ecology and Society 14(2): 32. Accessed at: http://www.ecologyandsociety.org/vol14/iss2/art32/

[34] Intergovernmental Panel on Climate Change (2007). Fourth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland.

[35] World Bank (2012). Turn down the Heat: Why a 4°C Warmer World Must be Avoided. Washington, DC.

[36] Direct drivers of ecosystem changes identified in the Millennium Ecosystem Assessment are: habitat change, climate change, invasive species, over-exploitation, and pollution. Millennium Ecosystem Assessment 2005, Ecosystems and Human Well-being: Synthesis, Island Press, Washington DC.

4. Furthermore, global environmental benefits achieved from other GEF focal area interventions could be compromised as the severity of climate change impacts grow. This underscores the strong linkage between climate change and other global environmental issues.

5. Mitigation actions involve direct reduction of anthropogenic emissions or enhancement of carbon sinks and reservoirs that are necessary for limiting long-term climate damage. Emissions of $CO_2$ are the primary driver of climate change. Key mitigation efforts—including low emission technologies and land use, land-use change and forestry (LULUCF) options—and investment in the coming decade will have a large impact on our ability to achieve lower stabilization levels to address this global challenge.[37]

6. Efforts to date by the international community to address climate change, including those supported by the GEF, have been insufficient to reverse or even stabilize GHG emissions in a timely manner. Given the magnitude and urgency of climate challenges, a project-by-project approach is clearly inadequate. Efforts by all countries on mitigation need to be scaled-up. Of particular relevance to enable scaling-up will be the support to developing countries to define and implement their contributions to global mitigation efforts. In this context, an immediate challenge is the availability of financing. The current global public funding to address climate change is approximately $10 billion per year. By some estimates, at least ten times that amount may need to be mobilized annually to address mitigation and adaptation needs.[38]

7. Facing these challenges, there is a need to step up a global effort in a coordinated manner. The Green Climate Fund (GCF) has been established, for which a mobilization effort is expected to begin. A robust partnership among various climate finance options, including the GCF, is needed to catalyze transformational change on global scale. The GEF Climate Change Mitigation Strategy seeks to explore complementarity and to maximize synergies within the evolving landscape of climate finance based on its strengths as described in its unique values proposition.

### *Conference of the Parties (COP) Guidance to the GEF*

8. The GEF is an operating entity of the financial mechanism of the UNFCCC. Since the GEF's inception, more than 63 COP decisions have provided guidance to the GEF, through over 170 paragraphs that provide direct guidance. The GEF continues to be responsive to the COP by incorporating its guidance into GEF climate change strategies, by approving projects and programs, and by adapting its policies and procedures.

9. The GEF-6 period (2014 to 2018) coincides with a key phase in the global negotiations to address climate change. The Durban Platform, established by UNFCCC Parties in 2011, launched a process to develop a protocol, another legal instrument, or an agreed outcome with legal force under the Convention applicable to all Parties. Among others, it is expected that the process will seek cooperation by all countries and their participation in an effective and appropriate international response, with a view to accelerating the reduction of global GHG emissions. Negotiations are to be completed by 2015, and the agreement is to be implemented by

[37] Science and Technical Advisory Panel. 2012. Climate Change: A Scientific Assessment for the GEF. Washington, DC.
[38] World Bank. 2012. Inclusive Green Growth: The Pathway to Sustainable Development. Washington, DC.

2020. The GEF-6 period will be critical for all countries, in particular for developing and transition countries to engage in and contribute to the agreement.

10. The most recent COP guidance was provided at COP 19 in Warsaw, Poland in 2013. The COP called upon Parties to ensure a robust sixth replenishment of the GEF in order to assist in providing adequate and predictable funding, and also requested the GEF to give due considerations to funding for small island developing states and least developed countries to enable them to address their urgent needs and to comply with their obligations under the Convention. The key areas of COP 19 guidance involve support for the preparations for intended nationally determined contributions, and continued support for the BURs. In terms of technology transfer, the COP requested the GEF to continue to consult with the Climate Technology Centre and Network (CTCN), and to report on the concrete results of consultations. The GEF was also requested to support, within its mandate, the implementation of country-driven projects identified in the technology needs assessments. Furthermore, the COP encouraged the GEF to strengthen collaborative efforts with the Standing Committee on Finance, and requested the GEF to clarify the concept of co-financing. The GEF was further requested to include information on the modalities of paragraph 5 of the memorandum of understanding (MoU) between the COP and the Council of the GEF in the GEF report to the COP. Paragraph 5 of the MoU concerns modalities for funding decision reconsideration.

11. Additional COP guidance of key relevance is on the establishment of the GCF. In 2011, COP 17 Parties in Durban, South Africa requested the UNFCCC Secretariat jointly with the GEF Secretariat to take the necessary administrative steps to set up the Interim Secretariat of the GCF.

***Rationale, Approach, and Specific Value Proposition***

12. With financing for 600 mitigation projects and programs in over 150 countries to date, the GEF supports countries towards a low-emission development path. The GEF-6 Climate Change Mitigation Strategy focuses on supporting integrated approaches that combine policies, technologies, and management practices with significant climate change mitigation potential.

13. The aim is to help countries address key drivers of global environmental degradation that stem from underlying global mega-trends, notably urbanization, population growth, and the rising middle class. To address these drivers, transforming policy frameworks, creating demonstration effects through innovation, and setting standards to shift markets are key influencing models in the GEF-6 Climate Change Mitigation Strategy. This approach is fully in line with the medium-term strategy articulated in the GEF2020 document, and seeks to help countries build stronger enabling environment with GEF support to catalyze impact.[39] Given the growing significance of climate change influence on all areas of GEF interventions, the GEF-6 Climate Change Mitigation Strategy will also seek to enhance synergies across focal areas. This approach is different from previous GEF strategies that focused more on sectoral and technology-specific interventions, and builds on the integrated programming approaches that emerged in the GEF-5 period. The GEF offers unique values for climate change mitigation efforts for the GEF-6 period.

[39] GEF (2013). Draft GEF 2020 Long-Term Strategy. GEF/C.45/03. Washington, DC.

*Facilitating Innovation and Technology Transfer with Supportive Policies and Strategies*

14. GEF resources play a key role in piloting emerging innovative solutions, including technologies, management practices, supportive policies and strategies, and financial tools. Examples for GEF-6 include piloting advanced energy technologies, support for performance-based mechanisms, mitigation or reduction of emissions of short-lived climate forcers (SLCFs), as well as promotion of de-risking tools. Support in these areas elucidates the potential for systemic change by partners and other financing institutions in position to mobilize much larger-scale financing. The GEF's piloting efforts also point to its well-established role in mitigating risks associated with the introduction of emerging solutions, hellping to initiate or accelerate the pace of delivery of such solutions. The GEF has significant experience coordinating project level financial support with other climate financing instruments, such as the Climate Investment Funds (CIF), exploiting this piloting and risk-taking feature (see Box 1), which may also be of relevance for the GCF. Building on the successful contributions of the Poznan Strategic Program on Technology Transfer and its Long-Term elements, the GEF will support the operationalization of the CTCN by financing innovative technology transfer and networking projects that address national priorities articulated in a country-driven manner and regional priorities, as well as those that may remove market barriers and create or leverage private sector investment opportunities.

15. The GEF-6 Climate Change Mitigation Strategy does not prioritize direct support for large-scale deployment and diffusion of mitigation options with GEF financing only. Rather, GEF-6 resources are utilized to reduce risks and address barriers, so that the results can facilitate additional investments and support by other international financing institutions, private sector, and/or domestic sources. This approach also ensures that the GEF mandate is complementary to those of other climate finance options that aim for scaling-up. The GEF thus embodies a pioneering spirit, to catalyze action by partners to generate additional global environmental benefits beyond the original GEF interventions.

*Catalyzing Systemic Impacts through Synergistic Multi-Focal Area Initiatives*

16. The multilateral environmental Conventions, including UNFCCC, Convention on Biological Diversity, United Nations Convention to Combat Desertification, and Stockholm Convention, are increasingly highlighting synergies among their respective objectives. Emissions stemming from degradation of land and natural ecosystems have already contributed to climate change, and have potential to further exacerbate its impact. Furthermore, climate change has the potential to significantly affect global environmental benefits in all GEF focal areas. This interaction between climate change and the other GEF focal area subjects points to the importance of recognizing climate change implications in all GEF focal areas, harnessing mitigation options to address them, and integrating climate resilience measures into all GEF areas to address climate change risks. The GEF has the unique ability to support natural solutions and actions that tap complementarity and synergy potentials to seek multiple global environmental benefits across Conventions while reducing trade-offs and duplication. Examples of GEF-6 support may include integrated urban management that encompasses sustainable transport and energy solutions with natural resource management, and projects that address the water-energy-food nexus (see Box 2). With the advent of the Minamata Convention on Mercury,

there is additional potential for synergies and co-benefits in projects addressing both $CO_2$ and mercury emission reductions.

17. The proposed Integrated Approaches also present opportunities to address focal area objectives in a holistic fashion. Further, since GEF-5, an increasing number of projects that address both mitigation and adaptation are supported by the GEF to help countries realize their low carbon and climate resilient development goals. The flexibility of the GEF to support such initiatives by combining resources from the GEF Trust Fund for mitigation and the two trust funds managed by the GEF for adaptation is a distinctive feature of the GEF.

*Building on Convention Obligations for Reporting and Assessments to Foster Mainstreaming of Mitigation Goals into Sustainable Development Strategies:*

18. The GEF's support for Convention-related reporting and assessment is becoming increasingly important, as the results help countries identify and assess mitigation goals and policies. In addition, the GEF is requested to provide support to countries to initiate or intensify domestic preparations for their intended nationally determined contributions in the context of adopting a protocol, another legal instrument or an agreed outcome with legal force in 2015. The GEF support may also generate information that supports the development of other major international goals, such as the Sustainable Development Goals. The GEF is currently the only institution with the mandate to finance national communications and BURs, which provide information needed for countries to define emissions sources and articulate mitigation potential. GEF support has also generated policy-relevant outputs, through NAMAs, technology needs assessments (TNAs), national adaptation programmes of action (NAPAs, supported by the Least Developed Countries Fund (LDCF)), and other assessments. The GEF is committed to supporting monitoring, reporting, and verification (MRV) efforts of national mitigation actions in line with Convention decisions. This work will be further enhanced in GEF-6 to help mainstream climate mitigation planning and policies into strategic decision making and help develop sustainable national capacity for the MRV of national mitigations actions.

**Box 1: Example of Complementarity with Climate Investment Fund**

The GEF has been financing climate change initiatives that are complementary to other climate financing mechanisms. For example, the CIF, through its Clean Technology Fund (CTF) and Strategic Climate Fund (SCF), focuses on providing support to 20 countries, primarily with concessional lending devoted to investments.[40] The GEF, given its relatively smaller size of project financing and its emphasis on innovative technology and processes, has supported projects on which further investments by the CTF and SCF are based. The CTF support in the Middle East and North Africa region and in Chile for concentrated solar power (CSP) follows a series of seminal GEF projects supporting the first trials of CSP implemented in developing countries. Another example is in Mexico, where a $50 million GEF grant for a wind energy project by the World Bank encouraged the development of wind energy by removing wind development's key bottlenecks related to the lack of financial competitiveness.

GEF grants can also be used to help lower the risks of project financing schemes and to facilitate their design and implementation. For example, in India, the GEF is providing a pool of risk capital for commercial lenders for the CTF Partial Risk Sharing Facility for Energy Efficiency. In Mexico, the CTF is supporting the Efficient Lighting and Appliances Project with the GEF financing helping to ensure the involvement of the country's development banks. By reducing the risks associated with consumer default, it removes a major barrier in the residential end-use sector allowing the adoption of more energy-efficient appliances. The GEF is committed to further enhancing complementarity with other climate financing initiatives. The GEF-6 results framework will include indicators that are complementary to the CIF framework, to facilitate coordination. The GEF is ready for further dialogue with the GCF and other mechanisms to enhance cooperation and support coordination in project conceptualization and financing.

**Box 2: Synergies among GEF Focal Areas**

The GEF has a unique ability to promote complementarity and synergy across the various Conventions it serves. The GEF-6 Climate Change Mitigation Strategy encourages countries to seek synergistic opportunities to address global environmental concerns. Examples of support for GEF-6 may include the following:

(a) Integrated urban management and infrastructure investment initiatives that encompass sustainable transport, clean energy solutions, urban biodiversity, and structural resilience against projected climate change effects such as fluctuations in energy sources and demands, and extreme events.

(b) Design of urban systems that impose less stress on the ecosystem services within and outside city boundaries.

(c) Forest management that includes biodiversity priorities, sustainable forest management (SFM), and mitigation actions targeting forest depletion drivers, to provide carbon benefits as well as other social and environmental benefits that forest can provide as an ecosystem.

(d) Agricultural practices that responds to land degradation issues and enhance soil quality while reducing agro-based GHG emissions.

(e) Water-food-energy nexus initiatives.

(f) Combined mercury emission reduction and energy efficiency improvement in manufacturing sectors.

(g) Reduction in GHG emissions from landfills coupled with reduction in release of chemical pollutants and contamination.

(h) Integrated mitigation-adaptation projects that promote low-emission growth with systematic identification of climate vulnerabilities and resilience, in areas such as coastal systems, urban transport and housing.

[40] Climate Investment Funds (2012). Creating the Climate for Change. 2012 Annual Report. World Bank Group, Washington, DC, USA.

***Gender***

19. Action to mitigate climate change has the potential to bring about gender-positive local impacts. Consistent with the GEF *Policy on Gender Mainstreaming* and the GEF-6 approach on gender mainstreaming and women's empowerment, and learning from experiences of other organizations, GEF financing through the Climate Change Mitigation Focal Area under this strategy will acknowledge gender differences and will determine key actions to promote women's role in implementation of programs and projects under the strategy. This will involve, for example, the use of gender analysis as part of the socio-economic assessment during project preparation, and the use of gender disaggregated project level indicators where relevant. The Focal Area will also monitor and track the GEF-6 core gender indicators through its projects.

20. Existing legal and normative frameworks guide the connections between gender equality, women's empowerment and climate change. The UNFCCC and its resulting decisions include references to women or gender equality. Women are often perceived primarily as victims and not as positive agents of change. However, women can be key agents of mitigation to climate change. Their responsibilities in households, communities and as stewards of natural resources position them well to develop strategies for mitigating climate change.[41] Women and men, as a result of their different economic and social roles and experiences, also have differentiated responsibilities and capacities in terms of adapting to and mitigating climate change. Women have significant contributions to make, based on their involvement in areas such as sustainable agriculture, to take just one example, but are often overlooked in related decision-making processes. Women around the world make decisions every day that influence the amount of carbon that is released into the atmosphere, for example as home-makers, as farmers and land-managers, or as consumers. Such choices can be expanded and better-informed in ways that reduce carbon footprints while also promoting co-benefits for gender equality.

21. Programs proposed under the strategy provide an opportunity to further assess the role of women in deployment of low-GHG technologies and mitigation options, and to include gender sensitive policies in development of mitigation related innovative policy packages and market initiatives. Assessing social and gender impact issues in communities hosting renewable energy projects, transport initiatives and determining the technical assistance needs of those communities in both rural and urban settings will facilitate their access to benefits of the projects and will also advance their engagement in the project implementation. The strategy further acknowledges the important role women play in sustainable land and natural resource management. The efforts to reduce emissions from forestry, agriculture and land-use change will be cognizant of this role and will support interventions that include women in governance of, allow access to, and support their involvement in, management of important natural resources for climate change mitigation.

22. Learning from other institutions, where possible projects will use gender disaggregated indicators and they will be systematically recorded, reported and integrated into the management of the project. Finally, given that the knowledge base on gender and climate change mitigation is still new and evolving; the focal area will undertake periodic reviews of the portfolio and highlight good practices in mainstreaming gender in climate change mitigation projects.

[41] Women's Environment Development Organization (WEDO), 2007

## Goal and Objectives

23. The goal of the GEF-6 Climate Change Mitigation Program is to support developing countries and economies in transition to make transformational shifts towards a low emission development path. The GEF support also aims to enable recipient countries to prepare for the new instrument under the UNFCCC applicable to all Parties.

24. The GEF-6 Climate Mitigation Strategy has three objectives derived from the value propositions outlined earlier:

(a) Promote innovation, technology transfer, and supportive policies and strategies;

(b) Demonstrate mitigation options with systemic impacts; and

(c) Foster enabling conditions to mainstream mitigation concerns into sustainable development strategies.

25. These objectives comprise a multi-pronged strategy to help countries address key risks and barriers as they shift towards a low emission development pathway. The GEF-6 Climate Change Mitigation Strategy encompasses opportunities that combine technologies, systems, financial and organizational mechanisms, policies, and best practices that help countries move towards innovative, rapid, and transformational change in addressing climate change.

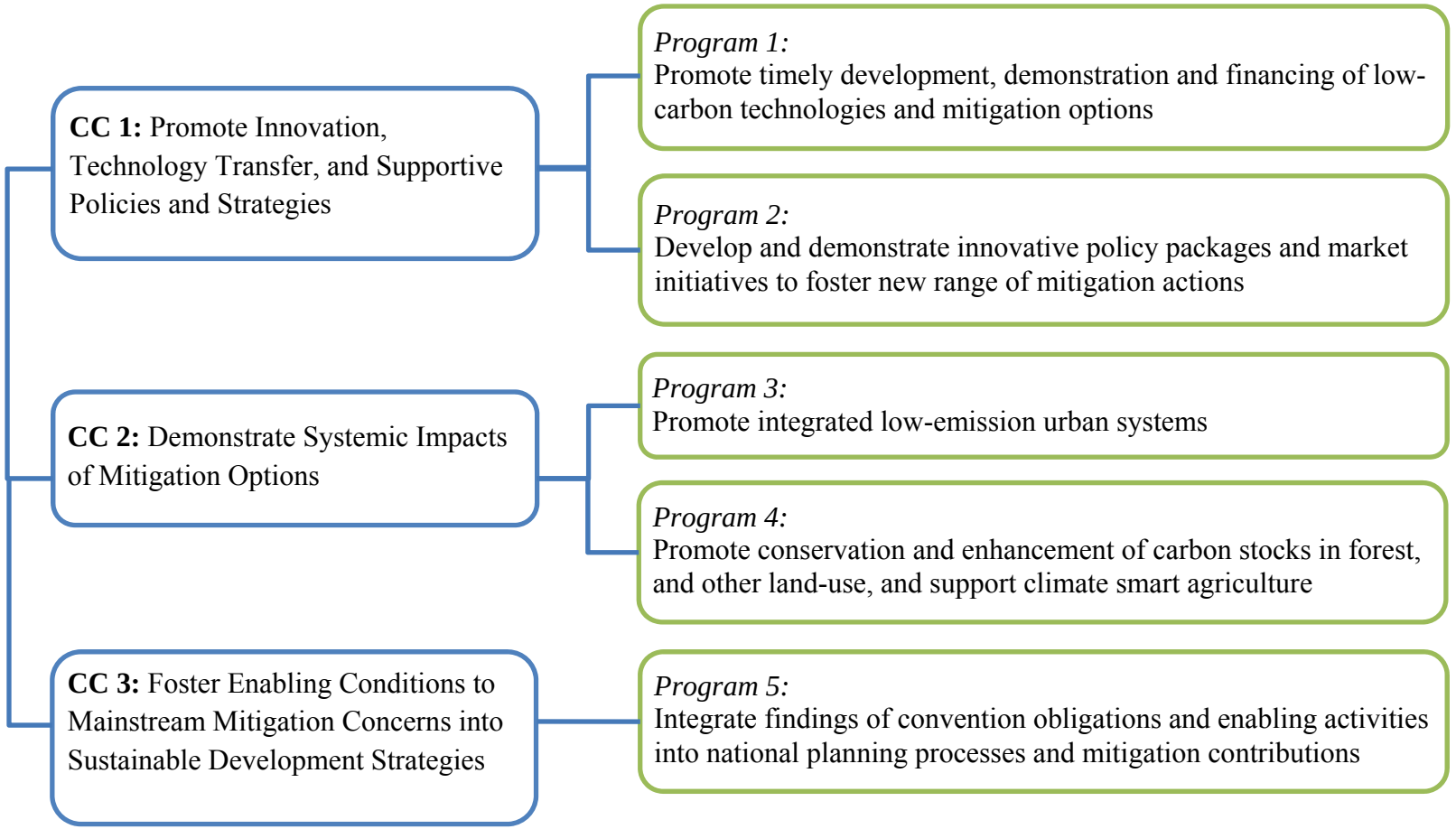
26. Five key Programs of GEF-6 interventions support the three objectives. They represent a suite of measures to assess and address risks and barriers that remain in the transformation toward low-emission development. They are described further below, and also shown as Figure 1. The programs, between them, aim to achieve the following three outcomes as shown in the results framework:

(a) Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration;

(b) Policy, planning and regulatory frameworks to foster accelerated low GHG development and emissions mitigation; and

(c) Financial mechanisms to support GHG reductions are demonstrated and operationalized

**CC Figure 1 - GEF-6 Climate Change Mitigation Focal Area Strategic Framework**



### *CC 1: Promote Innovation, Technology Transfer, and Supportive Policies and Strategies*

27. Technology development and transfer plays a central role in the global response to the challenges of climate change. The transfer of environmentally sound technologies is embedded in the fabric of UNFCCC.[42] It is enshrined in Article 4.5 of UNFCCC as one of the key means to reduce, or slow the growth in, GHG emissions, and to stabilize their concentrations. Technological change has the potential to significantly reduce the cost of meeting climate change goals. Innovation is also a foundation for development and economic growth, helping to create or expand markets for products and services, and generating jobs. Supportive policies and enabling environments are fundamental to catalyze innovation and technology transfer for mitigation.

28. Objective 1 of the GEF-6 Climate Mitigation Strategy aims to promote innovation, technology transfer, and supportive policies and strategies. The Objective consists of two Programs:

> Program 1: Promote the timely development, demonstration, and financing of low-carbon technologies and mitigation options.
>
> Program 2: Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions.

29. The GEF support will focus on testing and demonstrating innovative mechanisms that are complementary to efforts of other financial mechanisms, such as the GCF, to scale up, replicate and reach critical mass in a timely manner.

30. While projects and initiatives within this Objective are applicable to all countries, efforts may also be made to address time-sensitive needs to mitigate emissions from larger-emitting countries and sources, given their significant impacts on the global commons. Efforts will also be devoted to improving the sustainability of technology transfer financing and to involving the private sector.

31. COP 16 Parties agreed in 2010 in Cancun to establish and operationalize a Technology Mechanism within the Convention. Its aim is to facilitate the implementation of enhanced action on technology development and transfer in order to support action on mitigation of and adaptation to climate change. In 2012, the CTCN operationalization took place. Objective 1 responds to the recent COP guidance from Parties, which requested the GEF to support the CTCN operationalization and activities. Initiatives supported under this Objective may include, and respond to, national priorities articulated in a country-driven manner, through the CTCN. Expansions of regional and global level initiatives may also be considered. Coordination will be

[42] While there are many definitions of technology transfer, the GEF has adopted the concept as defined by the IPCC and embodied in the UNFCCC Technology Mechanism. Technology transfer is defined as "…a broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change amongst different stakeholders such as governments, private sector entities, financial institutions, non-governmental organizations (NGOs) and research and education institutions…" The definition includes a wide range of activities and extends to a broad array of institutions (for complete definition, see http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF_PoznanTT_lowres%20final.pdf). The concept includes, in particular, processes designed to provide feedbacks on the technology demonstration results for further improvement.

sought with relevant institutions, including CTC network members and other climate financing institutions, to ensure complementarity in support to respond to national needs for technology transfer. The GEF's support for technology transfer continues to respond to COP guidance on the Poznan Strategic Program on Technology Transfer and its Long-Term Program. Support for TNAs is included in Objective 3, Program 5.

*Program 1: Promote the timely development, demonstration, and financing of low-carbon technologies and mitigation options*

32. The GEF-6 Climate Change Mitigation Strategy supports innovation and technology transfer at key early and middle stages, focusing on the demonstration and early deployment of innovative options, as shown in Figure 2. The GEF support aims to help address elevated risks associated with innovation and mitigate the barriers of technology transfer, and to pilot promising approaches.

33. 99Program 1 will consider key application areas with significant anticipated and proven mitigation potential, and will support innovative polices and mechanisms to enable their uptake. This Program will support projects in the following categories:

(a) Technologies with transformational potential

(b) Acceleration of low emission technology innovation and uptake through demonstration, deployment, and transfer using policies and mechanisms

(c) Collaborative initiatives with stakeholders, including the private sector, to adapt technologies to user needs

34. Technologies with transformational potential. Some new and emerging technologies have the potential to contribute towards a transformational shift to low carbon growth and overall sustainable development. While they may offer significant mitigation potential, they may also entail a high level of risk and uncertainty. Transformational technologies involve a change of frame ("doing what we did not do before"). These are distinguished from incremental technology change that involves modest changes and adjustments ("doing better what we already do").

35. The GEF will support climate-friendly technologies, promoting both lower global warming potential (GWP) alternatives and energy efficient technology. With regard to energy efficiency projects wherein the GEF may also directly provide funding for the replacement of ODS-dependent technology, replacement technologies should be low-carbon technologies, preferably using near-zero GWP substances. The GEF-6 Climate Change Mitigation Strategy will support the development and demonstrations of highly innovative options with transformational potential that are not yet fully commercial and market ready, and those whose technical potential and socio-economic implications need to be demonstrated and assessed in the country or regional context. Such assessment needs to ensure that the options considered will avoid locking-in of technologies and will not block low-emission infrastructure development. Technologies and options with potential for large-scale GHG reduction will be considered for support, including but not limited to: smart grid technologies; short-lived climate forcer (SLCF) reduction measures; information and communication technology (ICT) for applications in smart grids, energy management, and industrial energy control systems; emerging distributed energy systems that complement renewable technologies such as micro turbines and reciprocating

engines; advanced transmission, distribution, and energy storage (battery) technologies; energy efficient power systems; fuel switching, including natural gas as a bridge fuel from coal to renewables; and renewable options including algae, wave, and others. Innovative initiatives that harness synergies between mercury reduction and GHG mitigation, including industrial interventions, will also be encouraged.

36. In particular, reducing the concentration of SLCFs has the potential to slow the rate of global warming over the next two to four decades, as they tend to have much stronger global warming potentials compared to $CO_2$.[43,44] In response to the time-sensitive needs, GEF's support may include reducing emissions from sources such as vehicles, engines, brick kilns, cook stoves, and open burning of agricultural and other wastes, and other forest and land-based sources, through measures including energy efficiency improvements, alternative technologies and appliances with lower emissions, improved management practices in agriculture, livestock, forest, and land-use sectors, as well as mitigating methane emissions through upgrading wastewater treatment works. SLCF-reduction will be supported according to the provision of the Conventions for which the GEF serves as the financial mechanism. Ensuring that gender is taken into consideration in these areas is critical for community engagement and uptake. These efforts may bring about co-benefits of reducing local and regional pollutants such as particulate matter, as well as socio-economic benefits.

37. In line with the GEF-6 approach to enhance private sector engagement, a private sector partnership mechanism for technology transfer and innovation may be supported under this Program. Projects with significant mitigation potential may be proposed, including those targeting innovation by small and medium-sized enterprises (SMEs).

38. Acceleration of low emission technology innovation and uptake through demonstration, deployment, and transfer using policies and mechanisms. The GEF will support the development, adoption, and implementation of policies, strategies, regulations and financial or organizational mechanisms that accelerate mitigation technology innovation and uptake. Key mitigation options include energy efficiency improvements, renewable energy, and sustainable transport. The focus is on systemic solutions, rather than specific technology support and individual sectoral interventions. The GEF support seeks to remove policy and regulatory barriers by creating enabling environments. Projects promoting greening across the full supply chains of major sectors may also be supported. Initiatives that are articulated as priorities by countries in a country-driven manner, for instance through the CTCN process, will be considered for support. Such support will include innovative technology transfer and networking projects, regional priorities, as well as projects that remove market barriers and create or leverage private sector investment opportunities.

39. *Energy efficiency:* A majority of mitigation assessments point to the key role of energy efficiency in addressing climate challenges.[45] Energy efficiency gains also contribute to other

[43] Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (2013). Communique from the Third Meeting of the High Level Assembly, Oslo.
[44] United Nations Environment Programme (2011), Near-term Climate Protection and Clean Air Benefits: Actions for Controlling Short-Lived Climate Forcers, Nairobi, Kenya.
[45] Plugging the Energy Efficiency Gap with Climate Finance, International Energy Agency, OECD/IEA 2012: http://www.iea.org/publications/insights/PluggingEnergyEfficiencyGapwithClimateFinance_WEB.pdf; Addressing

national development goals, such as energy security, poverty alleviation, and increased productivity. Recognizing these co-benefits, the GEF-6 Climate Mitigation Strategy will focus on policies and strategies that support the systematic uptake of innovative mitigation options that may not be widely adopted in particular markets. The GEF-6 support may include: global energy efficiency certification and standards program for "greening the supply chain," and mechanisms for appliance efficiency standards with global and regional coordination appropriately adapted to sensitivity to local conditions. The certification and standards programs for efficient appliances and equipment may be supported. Candidate areas include lighting, air conditioning, refrigeration, motors, and building codes. The GEF encourages partnerships with institutions active in this area to help support global coordination efforts. Projects that facilitate capacity development and sustainable compliance and enforcement approaches (e.g., fee based building code enforcement) may also be supported.

40. *Renewable energy*: Renewable energy, including traditional biomass, currently meets 13% of global primary energy demand. Approximately 40% of the global population needs universal access to electricity and cleaner cooking methods. Renewable energy has the potential to meet the increasing demand for energy services in the developing world. By 2050, the share of renewable energy in global primary energy provision could increase to 30-50%.[46] These observations point to the need to create enabling environments for renewable energy deployment in developing countries. Coordination of clean energy policies with relevant policies in other areas, such as agriculture, rural development, health, poverty eradication, gender equality and women's empowerment, and energy security, have the potential to generate synergistic co-benefits at the local, national, and global levels.

41. GEF support for renewables may be utilized to minimize key barriers to renewable energy deployment, including: support for energy access initiatives at the local level, including demonstrations and piloting of renewable options; support for policy and strategy frameworks to enhance integration of renewable options into energy supply systems, and; enhancement of technical and financial capacities to stimulate renewable energy project development. Candidate options include: medium and small-scale hydropower; on-shore wind power; geothermal power and heat; and bio-energy systems using biomass from wastes and residues; solar photovoltaic systems and CSP.

42. *Sustainable transport:* Sustainable transport urgently requires the timely development, demonstration, and financing of low-carbon systems and supportive policies, given the rapid increase of GHG emissions from the transport sources in developing countries. Options considered for GEF support may include: fuel and road pricing; policies and strategies to improve fleet fuel efficiency; support for alternative fuels and advanced engine technology pilots; demonstrations of smart transport grids, and; ICT applications for travel demand management. Public transport infrastructure such as bus rapid transit can potentially achieve significant, long-term GHG emission reductions, along with integration of non-motorized transport options. Policies and strategies to promote public transport and demonstrations of

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the Challenge of Global Climate Mitigation, Friedrich Ebert Stiftung 2011: http://library.fes.de/pdf-files/iez/08466.pdf

[46] GEA (2012). Global Energy Assessment - Toward a Sustainable Future, Cambridge University Press, Cambridge, UK and New York, NY, USA and the International Institute for Applied Systems Analysis, Laxenburg, Austria.

mitigation options will be supported, along with innovative policies and mechanisms for fuel economy standards and vehicle registration mechanisms. These initiatives will be harmonized with projects on integrated low-emission urban systems (Objective 2, Program 3). Furthermore, efforts to catalyze GHG emissions reduction from maritime and aviation sectors may be considered for support.

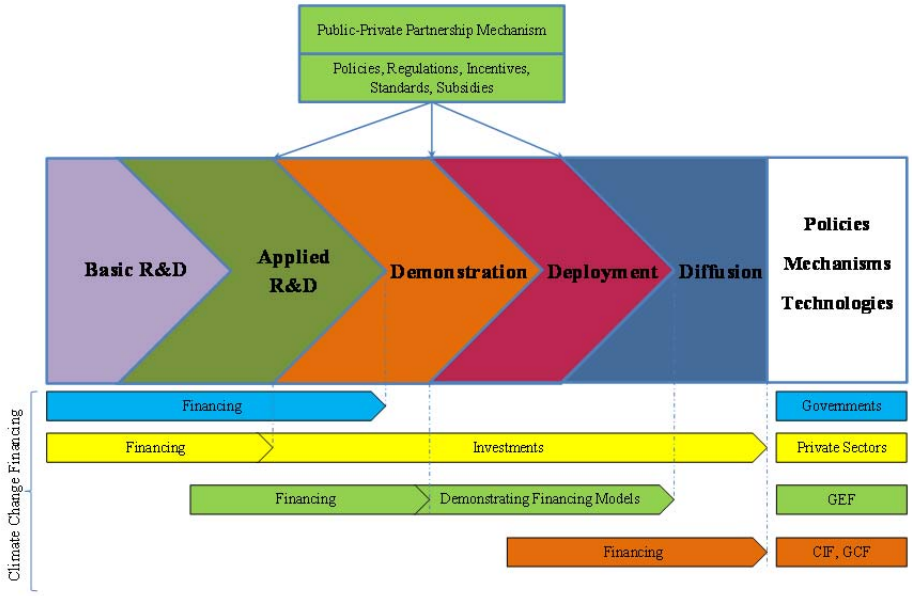
43. Furthermore, the GEF will help countries identify innovative business models, which can be adopted by the private sector to facilitate up-scaling of low carbon energy options. For instance, the GEF will support private or public energy service companies and SMEs to promote renewable energy and energy efficiency in rural areas. Attention will be paid to rural women and SMEs to ensure that women have access to markets to contribute to both efficiency and renewable energy. Decentralized, clean energy solutions for households, commercial buildings, and smart grids may also be considered. Such support, collectively, contributes to the goals of Sustainable Energy for All, and is in line with the GEF private sector engagement approach.

44. The GEF will also support the development and promotion of risk-mitigation tools, and may consider mechanisms to support aggregation of small projects into bankable size and attract institutional investors (e.g., pension funds). The financial mechanisms may include guarantees, hedging instruments, regulatory risk insurance, and public co-investments.

45. Collaborative initiatives with stakeholders, including CSOs and the private sector, to adapt technologies to user needs. The GEF will also facilitate collaborative initiatives to help adapt mitigation options to user needs with the engagement of stakeholders including CSOs, private sector, and other entities. These mechanisms may involve activities aimed at facilitating behavioral changes that enable people to adapt to new technologies and practices such as, among others, education, awareness raising, networking, and dissemination. The intent is to accelerate the uptake of mitigation options.

46. Projects under this program will be required to develop and demonstrate innovative mechanisms that are sustainable beyond the project implementation period. Once testing of a technology, mechanism, or policy has proven successful, the results and lessons learned will be widely shared to facilitate subsequent replication efforts by larger-scale financing mechanisms, such as the GCF. Projects will also be expected to include activities to set up mechanisms for MRV of associated GHG emissions.

**CC Figure 2 - GEF Support in the Innovation Chain**




*Program 2: Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions*

47. This program, within Objective 1, focuses on helping countries develop and demonstrate a limited number of innovative policy packages and market mechanisms to foster a new range of incentives for economically sound mitigation actions. While carbon taxes or cap-and-trade systems may be considered attractive options to efficiently mitigate emissions through price signals, these instruments may be politically difficult to enact. At the same time, a project-by-project approach is not adequate, given the scale and scope of the climate challenges. The three key areas of support envisaged in this program propose potential solutions to this dilemma.

48. Supporting the design of innovative policy packages addressing climate mitigation concerns and socio-economic consequences. The GEF will support countries that articulate, particularly in the national communications, BURs, and other assessments, a need for policy packages for emission mitigation while maximizing economic benefits and/or minimizing the socio-economic consequences of ambitious mitigation measures. Several studies, including an analysis by the International Monetary Fund, show that the implementation of domestic policies suited to the national context allows for significant reduction of the economic costs of mitigation policies.[47] GEF support will target the design, economic assessment, and implementation of such policy packages.

[47] International Monetary Fund, 2011. Accessed at: http://www.imf.org/external/np/exr/facts/enviro.htm

49. Demonstrating a performance-based mechanism linked to emission reductions. Performance-based financing mechanism may provide an innovative alternative, and some GEF Agencies are using this concept in their programs. The GEF will support the testing of incentive mechanisms of financing based on ex-post emission reductions assessments. The design and development of such financing mechanisms linked to emission reductions will be supported at a sector-, city-, or economy-wide level, and could include:

(a) Mechanisms to finance ex-post assessed emission reductions, based on an agreed upon baseline emission scenario;

(b) Mechanisms that associate loan financing to a GEF grant where the grant would incentivize additional emission reductions and lower the loan cost for the country if additional emission reductions are achieved;

(c) Mechanisms to enable national facilities to provide performance-based financing to financial institutions to support output-based climate change mitigation activities where the subsequent emission reductions would trigger concessional funding from the facility;

(d) Technical assistance and capacity building.

50. This approach may help countries build capacity and policy frameworks needed to implement nationally determined contributions. Projects need to feature: flexibility of governments/municipalities to design and implement the mechanism; potential for scaling up; and results agreements and monitoring mechanism. The quality of the national and/or sectoral scenarios and MRV system will be important for the performance-based mechanisms to function.

51. Supporting measures to de-risk low-emission investments. Many stakeholders lack the knowledge and tools necessary to make low-emission investment decisions. This limitation impedes the ability of today's financial markets to steer investments in a sustainable direction. In collaboration with private sector partners and financial market stakeholders, the GEF may launch an initiative to support the design of shared and transparent methodologies and their applications at the global, regional and national level to help assess the carbon risks of investments. Beyond this support to carbon-risk assessment methodologies, the GEF may also support initiatives aiming at greening the functioning of global or regional financial flows and markets (energy, transport, etc.) affecting GHG emissions. These measures will be introduced to be consistent with the GEF-6 private sector engagement approach.

***CC 2: Demonstrate systemic impacts of mitigation options***

52. This Objective addresses the need for impacts at regional and global scales and to expedite the adoption of mitigation options. The GEF intervention will focus on two emerging areas where potential systemic impacts of mitigation option are recognized. The Objective consists of two Programs:

Program 3: Promote integrated low-emission urban systems.

Program 4: Promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture.

53. Among the proposed Integrated Approaches, the Sustainable Cities Integrated Approach Pilot is expected to complement the GEF-6 Climate Change Mitigation Strategy, particularly Objective 2. The Sustainable Cities Integrated Approach Pilot aims to address and alleviate the impact of urbanization on multiple global environment issues in an integrated manner, and to seek potential synergy among different GEF focal areas, including Climate Change Mitigation. This Integrated Approach Pilot will support piloting of targeted interventions to promote integrated urban management with a harmonized set of global environmental and local indicators across the GEF focal areas to achieve global environmental benefits.

54. Projects addressing climate change mitigation issues under this Objective will include an MRV system to assess the expected tangible results in terms of global environmental benefits. All GEF projects provide funding for required Monitoring and Evaluation (M&E) analysis and reporting. The MRV systems will contribute information that may be used for the M&E analysis, and vice versa.

*Program 3: Promote integrated low-emission urban systems*

55. The GEF-6 Climate Change Mitigation Strategy introduces a new program to address low emission development needs at the city level. This program builds on transport and urban investments supported in GEF-5. Cities currently consume over two-thirds of the energy, and are responsible for over 70% of $CO_2$ emissions globally.[48] Cities also have responsibility in managing sectors with significant GHG emissions, including transportation, electricity, waste management, and buildings. Cities and urban institutions can have an innovative and practical role at the local level to address the global commons challenges.

56. This Program targets urban interventions with significant climate change mitigation potential, to help cities shift towards low-emission urban development. Projects may be submitted under this Program 3 to address mitigation goals. Also, a select number of projects that commit to pilot integrated urban management across the focal areas may use Program 3 to access incentive funding from the Sustainable Cities Integrated Approach Pilot. Countries can access the Integrated Approach Pilot support as a matching incentive with their own STAR resources, if they agree to implement integrated urban planning and management options that go beyond the usual mitigation initiatives, and commit to monitor and report on a set of indicators that encompass various global environmental conditions that the project would try to improve. Examples of projects eligible for support under Program 3 include:

(a) Urban initiatives that commit to GHG mitigation targets at the city level, which could utilize performance-based financing and incentives;

(b) Design and implementation of sustainable urban strategies, policies, and regulations, combining energy efficiency (buildings, lighting, air conditioning, transport, district heating systems), renewable energy development (solar, wind, co-generation, waste-to-energy), and other sources of GHG emissions (solid waste and wastewater management);

(c) Land use management, planning, and zoning, including the integration of land use

[48] Sustainable Cities: Building cities for the future, 2012. Partnership: C40 Cities, ICLEI, UNEP, World Green Building Council. http://www.sustainablecities2013.com/images/uploads/documents/SC2012.pdf

planning with transport planning and transit-oriented development, for sustainable cities to reduce energy demand, enhance climate resilience, and improve living standards;

(d) Innovative policies and mechanisms for freight and logistics services with the engagement of the private sector, including development of logistics platforms, reverse logistics, and low-emission zones;

(e) Urban sustainable transport infrastructure and systems that reduce demand for car travel through catalytic approaches, including road and parking policies and pricing, zoning and street/urban design codes, and congestion pricing, that are particularly relevant for urban, low emission development, and incentives for broader use of public transport, such as measures to enhance access and efficiency of public transport services and carpooling/carsharing programs;

(f) Initiatives to assess and reduce the impacts of SLCFs at the urban level; and

(g) Initiatives to enhance broad community engagement and support for and use of emission reduction approaches and low-carbon technologies.

57. Furthermore, multi-focal and multi-trust fund projects addressing urban issues may access Program 3 for mitigation action, while combining other focal area resources for the following:

(a) Promotion of sustainable production and consumption practices to de-couple urban growth and resource use, to reduce use of persistent organic chemicals (POPs) and other chemicals, methane and other SLCF emissions, mercury or lead, and e-waste generation;

(b) Phase-out of ozone depleting substances, with energy efficient and low GHG potential options;

(c) Design and implementation of integrated water resource management strategies that address climate change mitigation and climate resilience objectives; and

(d) Design and implementation of urban strategies that address mitigation, adaptation, chemicals management, and/or air quality management.

58. Projects addressing climate change mitigation issues in urban systems will include a robust MRV system to assess the expected tangible results in terms of mitigation benefits. Such support may be particularly relevant for the transport sector, which faces challenges in developing sound MRV systems.

*Program 4: Promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture*

59. This Program presents a unique opportunity within the GEF Climate Change Mitigation Strategy to draw direct linkages with programs under biodiversity, international waters, and sustainable land management, as well as climate change adaptation, when specific sustainable and scalable climate change mitigation activities can complement and enhance activities targeting other global environment benefits. The Program also articulates areas where

complementary support from the Sustainable Forest Management (SFM) program may be sought to generate multiple benefits.

60. The LULUCF and the agriculture sectors represent major GHG emission sources, accounting for approximately 31% of global emissions.[49] Methane ($CH_4$) and nitrous oxide ($N_2O$) emissions from the agriculture and to a lesser extent forestry sectors represent 14% of global emissions. Globally, agricultural $CH_4$ and $N_2O$ emissions have increased by nearly 17% from 1990 to 2005.[50] These emissions were not explicitly included in previous GEF strategies. GEF-6 support is extended to mitigate them.

61. The GEF-6 Climate Change Mitigation Strategy for LULUCF and agriculture will support projects that are designed to be adequate in scale and scope to mitigate climate change with additional attention to address leakage. Projects supported by this Program will be expected to address the root causes of forest carbon and other land use emission and emissions from agricultural practices. Within such focus, this Program may also be used to address mitigation potential within the context of food security projects, and to strengthen and improve the MRV of the GHG emissions and carbon sequestration. Initiatives to address SLCFs will also be considered for support. The GEF will provide support for the four areas described in the following sections.

62. Support mitigation-focused management practices in LULUCF: The GEF will continue financing projects to protect and enhance carbon concentration and $CO_2$ sequestration in forests, peatlands, and other ecosystems. The GEF will finance management activities within and outside of forest and other land use areas to address the identified and prioritized drivers of carbon depletion at the appropriate scale. The management activities will focus on approaches designed to protect the prominent carbon pools in these land use systems.

63. This Program may support robust climate change mitigation activities complementing SFM activities thus integrating carbon consideration into forest management, and identification and monitoring of high carbon value forests. The SFM program may also contribute towards the sustainability of mitigation efforts in the forest sector by supporting efforts to diversify livelihoods and building capacity for improved forest management.

64. Illustrations of potential application include mitigation efforts in peatland and blue carbon. Deforestation and drainage of peatlands generate emissions of approximately 2 to 3 gigatonnes of $CO_2$ each year, most of which could be attributed to conversion of peatlands to agricultural areas. The Program will support protection of carbon reservoirs in peatlands and technologically viable measures to restore such sinks, in addition to reforestation. Measures to address SLCF emissions from peat fires may also be supported. With an integrated approach on riverine and coastal zones, particularly coastal peatlands, combining mitigation and adaptation

[49] IPCC (2007). Fourth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland.

[50] Smith, P., D. Martino, Z. Cai, D. Gwary, H. Janzen, P. Kumar, B. McCarl, S. Ogle, F. O'Mara, C. Rice, B. Scholes, O. Sirotenko, 2007: Agriculture. In Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

objectives, the program will enable countries to protect blue carbon stocks in these ecosystems and harness their ability to function as a carbon sink and a natural infrastructure.

65. Support mitigation focused management practices in agriculture: Climate smart agriculture (CSA) initiatives that include mitigation objectives and activities will be eligible for financing in GEF-6, recognizing a wide array of opportunities in the agricultural sector to reduce GHG emissions.

66. The program will promote soil management practices, improved fertilizing methods, and precision agriculture measures to maintain soil quality and reduce $N_2O$ emissions. The $CH_4$ emission reduction options may include improved livestock management, improved wetland rice fields irrigation, reduced emissions from organic soils, and better waste management in intensive livestock systems. The program may provide support to control slash and burn shifting agriculture and open burning practices

67. In addition to approaches that reduce emissions from production landscapes, the program will also promote measures that increase carbon storage in farmlands, and may thus complement activities supported by the Land Degradation focal area focused on the rehabilitation of degraded areas to make them viable for agriculture and agroforestry. The mitigation measures may include reduced tillage, integrated crop-livestock, agroforestry and other innovative soil quality improving techniques that clearly target sustainable and scalable GHG reductions.

68. Together with the Food Security Integrated Approach Pilot, the Land Degradation Focal Area Strategy, and the inclusion of climate change resiliency through the LDCF and the Special Climate Change Fund (SCCF), this GEF Climate Change Mitigation focal area will support the development and implementation of models that increase food productivity without undermining the mitigation efforts. Such models will ensure the triple win of food security, climate change mitigation, and resiliency of agricultural systems.

69. Support policies and financial mechanisms to maintain and enhance carbon stocks or reduce emissions from LULUCF and agriculture: The GEF will support the development and enforcement of policies and financial mechanisms that aim to address the drivers of emissions linked to deforestation, change in land use, and agricultural practices, at a scale consistent with the scale of these drivers. The GEF will also provide support to policies that integrate emissions from LULUCF in national mitigation and low emission development goals.

70. Policy reforms are needed to develop incentives to initiate inclusion of innovative mitigation practices in forest, agriculture and land management. The GEF will provide support to improve the existing schemes or develop new ones to incentivize land users to undertake emission reducing measures. Such support may include insurance and risk guarantee schemes, greening of agricultural subsidy schemes, along with training systems to support farmers who engage in new practices.

71. Establish and strengthen accounting and MRV in LULUCF and agriculture: The GEF recipient countries often lack sustained technical and institutional capacity to improve the accuracy of GHG emission estimates from LULUCF activities or agriculture. The GEF may support activities and tools (e.g. mapping systems using high resolution satellite imagery) to

improve the accuracy of LULUCF changes and develop or improve estimations of the resulting carbon stock evolution. The LULUCF program may in particular support the ground-truthing of carbon estimates with field measurements. All activities requesting support in this area will have to support efforts within countries or regions to produce consistent, accurate, and well-documented estimates in a structured framework.

72. In partner countries of the United Nations collaborative initiative on Reducing Emissions from Deforestation and Forest Degradation in developing countries (UN-REDD), the GEF will provide complementary support to pilot carbon accounting approaches that inform and support national inventory systems and REDD strategies. In other countries, the GEF support will be available to finance projects and programs to develop and implement national and sub-national level monitoring systems, including development of baselines.

73. These MRV efforts may be complemented with capacity building of related institutions as well, so that countries can participate in voluntary carbon markets. Through such measures the GEF intends to build coordinated, credible national level LULUCF-related carbon inventories and robust accounting measures to allow countries to engage in international level dialogues on setting voluntary targets.

74. With coordinated efforts with Land Degradation and Biodiversity focal areas, the Program seeks to identify potential areas of cross-cutting intervention that are important from the GHG emissions perspective, and where it is possible to define sustainable and scalable management practices to reduce emissions, and to provide tools to monitor and account for the improvement in emissions, in complement to other activities addressing land degradation and biodiversity objectives.

***CC 3: Foster enabling conditions to mainstream mitigation concerns into sustainable development strategies***

75. This Objective addresses the need for enabling conditions to mainstream climate change concerns into the national planning and development agenda, through sound data, analysis, and policy frameworks. The Convention obligations, considered as foundational blocks of GEF interventions, are addressed, as well as enabling activities. The Objective consists of the following program:

*Program 5: Integrate findings of Convention obligations and enabling activities into national planning processes and mitigation contributions*

76. The overall aim of this program is to facilitate the integration of the reporting and assessment results into the national planning process and to help countries mainstream mitigation action in support of the proposed 2015 agreement.

77. To be in a position to make contributions for the 2015 agreement, which will enter into force beginning in 2020, GEF recipient countries face significant policy, technical, and organizational challenges, as well as data and analysis to support decision-making. The GEF has been providing financial and technical support to non-annex 1 countries to prepare national communications to comply with Convention obligations. Parties decided in 2011 at COP 17 to enhance the reporting of national communications from non-annex 1 countries, consistent with

their capabilities and the level of support provided for reporting. Countries also agreed to submit BURs, including national GHG inventories, national inventory report, and information on mitigation actions, needs, and support received. The COP has given guidance to the GEF to finance the BURs. Also, Parties decided in 2013 at COP 19 to request GEF and any other organizations in a position to do so to support developing countries to initiate or intensify domestic preparations for their intended nationally determined contributions in the context of adopting a protocol, another legal instrument or an agreed outcome with legal force in 2015

78. During GEF-6, the GEF will continue to provide resources to help countries prepare national communications and BURs, which help countries to assess their mitigation potential. The preparations of national communications and BURs will continue to be met at their full cost from the set-aside resources. The GEF may also support actions and activities to sustainably develop and enhance the capacity of countries to prepare their national communications and BURs. Wider stakeholder engagement will be encouraged to enhance partnerships and involvement of institutions concerned with national development strategy development and implementation. Such engagement will involve national consultations with organizations working on climate change and gender equality to ensure gender policies are mainstreamed into, for example, NAPAs and NAMAs.[51] In addition, Program 5 will provide support to countries for domestic preparations for their intended nationally determined contributions, and support activities responsive to other COP guidance in areas such as TNAs and capacity building.

79. Another Convention-related activity involves countries developing and implementing NAMAs to reduce their GHG emissions. During GEF-6, efforts to produce and implement NAMAs will be considered for support. The evolving NAMA modalities, may include domestic credit systems, cap and trade systems, and other voluntary new market mechanisms, and could constitute single-sector, multi-sector, or economy-wide approaches. NAMA implementation may also be supported under Objectives 1 and 2. The GEF may provide support for the development of MRV systems within the NAMAs, which could strengthen the basis for innovative financial mechanisms, including carbon finance and voluntary emission trading at the national level. The GEF may also continue to support Low Emission Development Strategy development and implementation as one of the key vehicles to support mainstreaming of mitigation actions, on which NAMAs could be built.

80. The GEF may facilitate ICT applications to improve the ability to compare and analyze assessment results, and thus enable wider use of such results efficiently and in a timely manner. Other partners, including financing institutions, may also support this effort. The GEF will provide resources to countries to assist with capacity building and creating enabling environments, in line with Convention guidance.

81. Finally, as indicated earlier in the Strategy, GEF-6 climate change mitigation projects are expected to articulate relevance to the analysis and findings of national communications, BURs, or TNAs, or be part of a NAMA implementation plan.

***Climate Change Mitigation Focal Area Set-Aside***

[51] A good practice is that of the ccGAPs, Climate Change Gender Action Plans, developed by IUCN.

82. Countries will be able to access the focal area set-aside funds (FAS) to implement Convention obligations and enabling activities. Support would be provided for all GEF-eligible countries to produce the national communications and BURs, in line with COP guidance. Support for TNAs will also be made eligible for small island developing states (SIDs) and least developed countries (LDCs) for the FAS. The set-aside amount for the Convention obligations and TNAs totals $130 million.

83. The remaining funds in FAS will be used to address supra-national strategic priorities or to incentivize countries to participate in global, regional, or multi-country projects. Some areas where such support may be made available include: programs that will produce significant global long-term GHG emissions, but with limited appeal to individual countries; support for expansion of carbon markets; early demonstrations of innovative financial mechanisms and instruments, such as performance-based mechanisms; innovative projects with a potential for transformative change towards low-emission development; and others.

84. Projects supported with FAS funds will meet some or all of the following criteria: (i) relevant to the objectives and programs of the GEF Climate Change Mitigation Strategy; (ii) support priorities identified by the COP; (iii) likelihood that the project will have a broad and positive impact on climate change mitigation; (iv) potential for replication; (v) global demonstration value; (vi) contribute to global knowledge through formal experimental or quasi-experimental designs that test and evaluate the hypotheses embedded in project interventions; and (vii) innovative project with a potential for transformative change toward low-emission development.

85. An incentive system may also be made available for global and regional projects whereby participating countries would receive resources from the FAS proportionate to the amount of resources dedicated to a project from their national allocation.

## Climate Change Resource Envelope

## CC Table 1 - Focal Area Objectives and Indicative Allocations per Program

| Focal Area Objective | Focal Area Programs | Indicative Allocation Status-quo Scenario ($ million) | Indicative Allocation Status-quo Plus Scenario ($ million) |
|---|---|---|---|
| **CC 1.** ***Promote innovation, technology transfer, and supportive policies and strategies*** | **Program 1:** Promote timely development, demonstration and financing of low-carbon technologies and mitigation options | 220 | 255 |
| | **Program 2:** Develop and demonstrate innovative policy packages and market initiatives to foster new range of mitigation actions | 195 | 225 |
| **CC 2.** ***Demonstrate systemic impacts of mitigation options*** | **Program 3:** To promote integrated low-emission urban systems | 200 | 230 |
| | **Program 4:** Promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture | 200 | 220 |
| **CC 3.** ***Foster Enabling Conditions to Mainstream Mitigation Concerns into Sustainable Development Strategies*** | **Program 5:** Integrate findings of Convention obligations enabling activities into national planning processes and mitigation contributions | 95 | 95 |
| **Focal Area Set-Aside (including contributions to SFM, Convention obligations, Integrated Approaches)** | | 310 | 345 |
| **Total Climate Change Mitigation** | | **1,220** | **1,370** |

## Results Framework

86. The GEF-6 Results Framework for Climate Change Mitigation has been streamlined with three objectives and five Programs. They are monitored and tracked with three Core Outcomes and seven core outcome indicators. These elements will be monitored and tracked for each project. The three outcomes apply across the five programs as a matrix. Three outcome indicators will be monitored across the five Programs.

87. The following matrix summarizes the strategic objectives, programs, outcomes and indicators. The information is also presented as a results framework in the subsequent table, in a non-matrix presentation.

| **Objective** | **Program** | Outcome A. **Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration** | Outcome B. **Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation** | Outcome C. **Financial mechanisms to support GHG reductions are demonstrated and operationalized** |
|---|---|---|---|---|
| | | Indicator 1. Tons GHG reduced or avoided*<br>Indicator 2. Volume of investment mobilized and leveraged by GEF projects for low GHG development*[52]<br>Indicator 3. MRV systems for emissions reductions in place and reporting verified data[53] | | |
| Objective CC1 | Program 1 | Indicator 4. Deployment of low GHG technologies and practices[54] | Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework*[53] | Indicator 6. Degree of strength of financial and market mechanisms for low GHG development [53] |
| | Program 2 | | Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework | Indicator 6. Degree of strength of financial and market mechanisms for low GHG development |
| Objective CC2 | Program 3 | | Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework | Indicator 6. Degree of strength of financial and market mechanisms for low GHG development |
| | Program 4 | Indicator 4. Deployment of low GHG technologies and practices [54] | Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework | |
| Objective CC3 | Program 5 | | Indicator 7. Number of countries meeting convention reporting requirements and | |

* This indicator is common with or highly similar to a Climate Investment Fund Core Indicator (CTF and PPCR).
[52] Disaggregated between public and private investments.
[53] Measured by a qualitative rating; see details in Annex II
[54] Options for indicator reflecting the sectoral/resource context are listed in Annex II.

| | | | | |
|---|---|---|---|---|
| | | | including mitigation contributions[55] | |

**Goal:**

(a) To support developing countries and economies in transition to make transformational shifts towards a low-emission, resilient development path.

**Impact:**

(a) Reduced growth in GHG emissions and contribution to the eventual stabilization of GHG concentrations in the atmosphere.

**Indicator:**

(a) Tonnes of $CO_2$ equivalent avoided, both direct and indirect, over the investment or impact period of the projects.

**Corporate Level Outcome Target:**

(a) 750 million tons $CO_2$ equivalent.

**Gender Indicators:**

(a) Focal Area projects will use and incorporate GEF Gender Indicators, which will be monitored and aggregated at the Focal Area portfolio and Corporate levels.[56]

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| | | Indicator 1. Tons GHG reduced or avoided<br>Indicator 2. Volume of investment mobilized and leveraged by GEF projects for low GHG development<br>Indicator 3. MRV systems for emissions reductions are in place and reporting verified data |

[55] With evidence on ability for operationalizing

[56] Refer to the core GEF Gender Indicators identified under the gender section of the Strategic Positioning Paper for GEF-6 replenishment. The five Gender Indicators are:
1. Percentage of projects that have conducted gender analysis during project preparation.
2. Percentage of projects that have incorporated gender sensitive project results framework, including gender sensitive actions, indicators, targets, and/or budget.
3. Share of women and men as direct beneficiaries of project.
4. Number of national/regional/global policies, legislations, plan, and strategies that incorporates gender dimensions (e.g. NBSAP, NAPA, NAP, TDA/SAP, etc).
5. Percentage of Project Implementation Reports (PIR), Mid-term Evaluation (MTE) and Terminal Evaluation Reports (TER) that incorporate gender equality and women's empowerment and assess results/progress.
Projects will use gender-sensitive indicators and sex-disaggregated data, and it will be systematically recorded, reported and integrated into adaptive management responses at the project level. GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in projects, including through Annual Monitoring Review and Learning Missions.

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| Objective 1: Promote Innovation, Technology Transfer, and Supportive Policies and Strategies | Program 1: Promote the timely development, demonstration, and financing of low-carbon technologies and mitigation options | Outcome A. Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration<br><br>Indicator 4. Deployment of low GHG technologies and practices<br><br>Outcome B. Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation<br><br>Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework<br><br>Outcome C. Financial mechanisms to support GHG reductions are demonstrated and operationalized<br><br>Indicator 6. Degree of strength of financial and market mechanisms for low GHG development |
| | Program 2: Develop and demonstrate innovative policy packages and market initiatives to foster a new range of mitigation actions | Outcome B. Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation<br><br>Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework<br><br>Outcome C. Financial mechanisms to support GHG reductions are demonstrated and operationalized<br><br>Indicator 6. Degree of strength of financial and market mechanisms for low GHG development |
| Objective 2: Demonstrate Systemic Impacts of Mitigation Options | Program 3: Promote integrated low-emission urban systems | Outcome B. Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation<br><br>Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework<br><br>Outcome C. Financial mechanisms to support GHG reductions are demonstrated and operationalized<br><br>Indicator 6. Degree of strength of financial and market mechanisms for low GHG development |

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| | Program 4: Promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture | Outcome A. Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration<br><br>Indicator 4. Deployment of low GHG technologies and practices<br><br>Outcome B. Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation<br><br>Indicator 5. Degree of support for low GHG development in the policy, planning and regulatory framework |
| Objective 3: Foster Enabling Conditions to Mainstream Mitigation Concerns into Sustainable Development Strategies | Program 5: Integrate findings of Convention obligations and enabling activities into national planning processes and mitigation targets | Outcome B. Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation<br><br>Indicator 7. Number of countries meeting convention reporting requirements and including specific GHG reduction targets |

## Annex I. Innovative Programming Options

1. For the GEF Climate Change Mitigation focal area, innovation in project design and implementation is critical. Global and regional investment in clean energy and other low-carbon technologies and innovative practices is growing but not at the speed needed to meet the 2 °C target. Innovative programming options may increase flexibility in programming, create new entry points for project partners, and offer low-cost opportunities for achieving GHG emission reductions. Some examples of how climate mitigation projects can utilize the innovative programming options are listed below:

(a) Performance-based financing and incentives: Performance-based financing and in particular output based aid has been used, including by GEF Agencies, in the health and education sectors. Its application in the climate change mitigation field is emerging. The Climate Change Mitigation focal area will promote the use of performance-based financing and incentives introduced, including the following cases:

(i) *Project-based:* performance-based financing could be utilized on individual projects for example through the inclusion of output based funding. Projects that require strong measurement and verification to ensure global environmental benefits, such as renewable energy supply or forest protection, may be suitable. A more consistent application of this mode of financing may be pursued in larger emitting countries.

(ii) *Sector, city or economy-wide*: Countries or cities with economy-wide or sector-based emission reduction targets (in tonnes of $CO_2$ equivalent and/or percent reduction) may utilize performance-based financing. Possible mechanisms and proposed conditions are detailed in the description of Objective 1, Program 2. Countries that pilot such approaches will gain flexibility and viable options for governments/municipalities to design and implement activities to achieve the agreed-upon results to access financing.

The performance-based funding encourages grantees to implement projects quickly with an emphasis on results. Provisions to support technical assistance covering the initial transaction costs and first activities of such mechanisms will be considered. The operational modalities of performance-based financing, including criteria for selection, requirements for verification will be developed.

(b) Promoting multi-focal projects with climate benefits: Climate change mitigation is a focal area for which initiatives serving multiple global environmental benefits in synergy can be identified and supported provided a clear added value in addressing these multiple benefits in a unique project can be demonstrated. Examples of eligible topics may include: SFM; land use-related carbon management; low emission urban systems; and climate-chemical nexus. Another emerging area is the synergy opportunity for mercury reduction and climate mitigation in power generation. In addition to the multi-focal projects that combine funding from multiple focal areas, some projects under single focal areas

can also provide additional co-benefits and thus enhance the emphasis on multiple global environmental benefits. For example, sustainable transport projects can also, in some cases, address climate resilience, projects promoting energy efficient buildings can also address climate resilience, and projects promoting renewable energy can help reduce pressure on water resources. The GEF will encourage such projects to address multiple benefits, for instance through the application of climate resilience principles in all mitigation projects.

(c) Flexible programming for high-impact projects and under-served countries:

(i) *Large-scale, high-impact projects*: Projects with the potential to deliver significant, rapid, sustained emission reduction must become a regular part of the GEF portfolio. These large-scale, high-impact projects will be needed particularly in countries with economies in transition and fast-growing urban centers. To encourage these projects, GEF may consider incentives, regional approaches, and public private partnerships.

(ii) *Flexible programming for least developed countries (LDCs) and Small Island Developing States (SIDS)*: Incentive programs for expedited and flexible programming for LDCs and SIDS may be pursued to promote clean energy access for SIDs and LDCs.

(d) Flexibility for regional projects and programs: The Climate Change Mitigation focal area has supported regional projects, such as the Strategic Program for West Africa, and regional Climate Technology and Financing Center projects. In GEF-6, Agencies will be encouraged to identify themes in climate change that would allow for rapid replication and adoption of regional programs. Topics may include energy access, innovation and technology transfer promotion, energy efficiency appliances and equipment, transboundary SFM, and regional sustainable agriculture efforts.

(e) Catalyzing private sector engagement: To help catalyze investments and leverage opportunities, the Climate Change Mitigation focal area will also actively pursue projects with private sector engagement. Agencies will be encouraged to submit projects that are aligned with the GEF-6 private sector engagement options. Some examples of how the GEF will encourage private sector engagement are listed below.

(i) *Public Private Partnerships (PPP)*
Clean energy and low-carbon technologies are rapidly going down the cost curve and achieve high penetration rates in some GEF recipient countries. However, this growth is not consistent, reliable, or uniform across the countries. New PPP have proven successful in promoting low-carbon investments through loans, equity investments, and risk-sharing. The Climate Change Mitigation focal area will encourage countries to consider PPPs under the non-grant set-aside and within the focal area allocation.

(ii) *Risk-mitigation and structured financing tools*
Clean energy and low-carbon technologies are often perceived as risky by potential investors. The development of new tools to assess risks and their

applications may help those countries having difficulty attracting strong private sector investment for clean energy. For example, the GEF support may support policy de-risking through reforms, and may also pilot and validate insurance programs applied to policy risk for renewable power purchase agreements. Other areas are structured financing tools that allow the GEF to reduce risk and attract institutional investors.

(iii) *Global certification and standards program*
This approach may be pursued for energy efficiency technologies, modeled after the ongoing successful initiatives. For example, this effort could support growing efforts at national and international level for "greening of the supply chain" which helps businesses grow locally while delivering global environmental benefits. The program would identify and promote quality, standards, policy development, and MRV for efficient appliances and equipment and green supply chains. Candidate technologies include lighting, highly innovative air conditioning and refrigeration, motors, and building codes.

(iv) *SME Small Grant/Loan Program*
The GEF could develop an SME grant/loan program focused on climate change mitigation and low-carbon technologies. The SMEs could use small grants or loans to promote, for example, enhanced adoption of solar thermal technologies for manufacturing; energy efficient cook-stoves; local manufacturing of mini-hydro systems; and other low-carbon technologies. Integrated mitigation and adaptation projects might include small grants for adoption of ICT for tracking of climate smart agriculture to reduce emissions, and use of fertilizer and water.

## Annex II. Further Descriptions of Projects Monitoring and Results Framework

1. The Simplified Results Framework will track GEF Climate Change Mitigation funding and measure their impact. The three Core Outcomes include:

(a) **Outcome A. Accelerated adoption of innovative technologies and management practices for GHG emission reduction and carbon sequestration:** This includes results related to the demonstration, development and deployment of low GHG technologies in various sectors, increasing GHG efficiency of resource use and operationalization of low GHG production and service delivery systems.

(b) **Outcome B. Policy, planning and regulatory frameworks foster accelerated low GHG development and emissions mitigation:** This includes results related to developing/strengthening policy, planning, regulatory and related enabling frameworks, developing and implementing emission targets and priority actions, implementing innovative policy packages to reduce economic burdens of mitigation and advance mitigation, meeting convention requirements etc.

(c) **Outcome C. Financial mechanisms to support GHG reductions are demonstrated and operationalized:** This includes results related to developing, financing and operationalizing performance based systems, deploying financial mechanisms that use incentives and mitigate GHG related risk.

2. Outcome Monitoring - Once the projects within the Climate Change Mitigation portfolio identify the program(s) and associated outcomes that are applicable to them, they will report on the associated outcome indicators. It is possible that some projects may not find all three outcomes applicable to them. The project will then report on the relevant core outcome indicators associated with the applicable outcomes. All projects will monitor and report on the three first core outcome indicators, which are tons GHG reduced or avoided, volume of investment mobilized and leveraged by GEF projects for low GHG development, and MRV systems for emissions reductions are in place and reporting verified data. It is expected that projects will provide, through an annex of in their monitoring reports, supporting details such as background information, relevant sectoral context and monitoring methodology.

3. Gender Monitoring: The focal area will also monitor and track the GEF-6 core gender indicators.

4. Output Monitoring: Outputs and their indicators will be defined by individual projects.

### Additional descriptions on Indicators 3, 4, 5, and 6

5. Indicator 3: The quality of MRV systems tracking results related to low-GHG development and GHG emissions mitigation is essential for ensuring transparency, accuracy and comparability of information with regard to climate change. They also act as repositories of knowledge and information and contribute to improving the design and prioritization of action to reduce GHG.

6. The key elements of an MRV are described by the following table and the assessment of the quality of these elements is done on a scale of 1-10.

7. Guidance for Ratings[57]:

1. Very little measurement is done, reporting is partial and irregular and verification is not there
2. Measurement systems are in place but data is of poor quality and/or methodologies are not very robust; reporting is done only on request or to limited audience or partially; verification is not there
3. Measurement systems are in place for a few activities, improved data quality and methodologies, but not cost or time efficient; wider access to reporting is still limited and information is partial; verification is rudimentary/non-standardized
4. Measurement systems are strong in a limited set of activities however, analyses still needs improvement; periodic monitoring and reporting although not yet cost/time efficient; verification is only upon specific request and limited
5. Measurement systems are strong for a limited set of activities and periodically report on key GHG related indicators i.e. mainstreamed into the activity implementation; reporting is improved through few pathways but limited audience and formats; verification limited
6. Measurement systems are strong and cover a greater percentage of activities – feedback loops exist even if they are not fully functioning; reporting is available through multiple pathways and formats but may not be complete/transparent; verification is done through standard methodologies but only partially (i.e. not all data is verifiable)
7. Measurement regarding GHG is broadly done (with widely acceptable methodologies), need for more sophisticated analyses to improve policy; Reporting is periodic with improvements in transparency; verification is done through more sophisticated methods even if partially
8. Strong standardized measurements processes established for key indicators and mainstreamed into institutional policy implementation; reporting is widely available in multiple formats; verification is done for a larger set of information
9. Strong Monitoring and Reporting systems – robust methodologies, cost effective and efficient, periodic; verification done to a significant degree
10. Strong MRV systems that provide quality GHG related information in a transparent, accurate and accessible to a wide audience, with feedback of information from MRV flowing into policy design and implementation

8. Questions and elements to consider in assessing the quality of MRV systems in arriving at the rating would include the following:

[57] While this is a subjective rating, the guidance for the ratings provides direction for benchmarking the quality of the MRV systems

| | **Measurement** | **Reporting** | **Verification** |
|---|---|---|---|
| **What** | Is what is being measured clearly defined? Are indicators associated with actions appropriate? | What is being reported? In what form? Is it complete information? | What is the process for verification? |
| **How** | Are methodologies for measurement robust?<br>How cost effective/efficient is it? | What are the reporting pathways/ formats? Accessible to how many?<br>How cost effective is it? | Are methodologies for verification standard accepted?<br>How cost effective is it? |
| **Who** | Who is doing the measurement? Collating the information? Analyzing it? | Who is responsible for reporting the information? To whom? | Who is doing the verification? |
| **When** | Is there a standard measurement cycle? Is it periodic or one-time only (eg. Project based)? | When is the reporting done? Does reporting match key milestones / monitoring periods (CIF reporting, Convention reporting etc)? | When is verification done? As a standard or only on demand for specific indicators |

9. Indicator 4: The choice of indicator formulation for this indicator on deployment of low GHG technologies and practices will reflect the sectoral/investment context. One or more of the following indicators, as relevant to the project, can be selected:

10. As a result of GEF support:

(a) Changes in time taken for low GHG technology adoption (time saved)

(b) Changes in Energy use or energy efficiency (energy savings)

(c) Renewable energy installed (increase in Kwh)

(d) Area under low GHG management practices (number of hectares, with monitoring of low GHG impact undertaken)

(e) Usage of low GHG systems (number of users of low GHG systems, with monitoring of low GHG being done)

11. Indicators 5 and 6: A qualitative rating will act as a measure of Indicator 5 on the degree of support for low GHG development in the policy, planning and regulatory frameworks and Indicator 6 on the degree of strength of financial and market mechanisms for low GHG development. This rating being qualitative will be both subjective and reflective of the particular context of the project. As such it may be possible to have different ratings within a country reflecting the varying strengths of different sectors' enabling environment and financial mechanisms. Similarly, mid-term and end of project reviews provide opportunities for assessments for these ratings. At the baseline stage, it will reflect the status so far while subsequent ratings will reflect GEF contribution to outcome achievements.

12. It is expected that the projects would provide a rating for these indicator and provide a supporting note in the annex of the Results Framework with details on background (available information, documents/reports), reasoning for the rating (including any dissensions among stakeholders), and information on the participants (number, designation).

13. The qualitative rating for indicator 5 on the degree of support for low GHG development in the policy, planning and regulatory frameworks will act as a proxy reflecting the strength and contribution of the enabling environment in facilitating accelerated low-GHG development in the country. It will reflect a combined assessment of two aspects of this outcome that results from GEF support: first, the strengthened planning and policy framework (mandates, priority actions, GHG reduction targets etc. defined); and second, the strengthened implementation capacity (skills/staff/resources available, budgeted programming in place), to mitigate GHG.

14. The indicator rating will be done in a band of 1-10 where:

1. No policy or strategy for climate change is in place or major development policies/strategies have marginal emphasis on climate change
2. Requisite assessments/knowledge products conducted to support sound climate change mitigation enabling policy framework
3. Policy/strategy proposed and consultations ongoing (quality is good and addresses the main climate change mitigation issues related to the relevant sectors)
4. Strong policy/strategy adopted while implementation (or capacity) is weak/in progress
5. Strong policy/strategy adopted and institutional capacity for implementing key policy directives strengthened with adequate budget allocation
6. Sub-sector and institutional plans reflect key policy targets and priority actions of main development/climate plans and capacity for implementation at sub-sector is strengthened
7. Regulatory framework developed to implement the policy/strategy (relevant regulations adopted, routine screenings conducted)
8. Strong policy and regulatory frameworks designed with financial/market/incentive based mechanisms in multiple sectors of the economy
9. Strong institutional capacity to foster innovative mechanisms, and remove constraints for low GHG development in more than one sector – GHG targets are met in more than one sector
10. Enabling policy/regulatory and planning frameworks successfully promote economy-wide GHG mitigation and low GHG development (targets enforced, market mechanism functioning well)

15. Answers to a number of questions may contribute to the discussion in arriving at the rating, including:

(a) Do national/sector/agency legislative policies expressly address climate change and promote mitigation, in particular?

(b) Is there a GHG inventory? Are information, studies and assessments addressing climate change, relevant to the project context available?

(c) Is there a mitigation target coded in any policy?

(d) Is there routine screening for climate change risk and mitigation potential in planning processes?

(e) Do national/sector/agency plans identify specific and priority measures for mitigation? Have responsibility/resources been assigned for implementing these measures?

(f) What economic/financial/fiscal incentives and disincentives are there? Which economic behaviors/actions or technologies do they address?

(g) Are there regulations directed towards or contribute to climate change mitigation? Which sectors/agencies do they involve?

(h) Is there adequate implementation capacity? Is there necessary climate change and mitigation related expertise available in the key institutions?

(i) Do the policy/regulatory frameworks promote market/financial mechanisms to reduce GHG emissions

16. For indicator 6 on the degree of strength of financial and market mechanisms for low GHG development/mitigation, qualitative rating may act as a proxy to reflect the status and improvements in the availability (access), operational strength (stability) and quality, and degree of uptake across sectors of innovative financial and performance/incentive based mechanisms that incorporate and promote low GHG development or support mitigation of GHG emissions.

17. These include credit lines and investments where GHG emissions risks have been incorporated or promote low GHG development, risk guarantees, revolving funds, and performance/incentive based market mechanisms and so on. The indicator rating will be done in a band of 1-10 where:

1. No such facilities are in place
2. Assessments and technical studies for financial/performance-based mechanisms have been completed
3. Strong proposal defined with buy-in from stakeholders confirmed
4. Resources and capacity for financial/incentive mechanisms secured
5. Financial/performance based mechanism in operation with evidence of stability
6. Financial/performance based mechanism successfully demonstrated
7. Policy and enabling framework addresses any constraints to wider uptake of such mechanisms
8. Incidence of replication and scale up within and across sectors
9. Substantive replication and scale up of financial/performance based mechanisms (significant percent of sector investment flows through such mechanisms or significant volume of such investments)
10. Substantial GHG emission reduction/mitigation in associated sectors realized through the mechanism

## CHEMICALS AND WASTE FOCAL AREA STRATEGY

### Background

#### *Status of Chemicals Contamination*

1. Contamination by chemicals is a global issue. While toxic chemicals are found practically in all ecosystems on earth, thus affecting biodiversity, agricultural production or water resources, scientists estimate that everyone today carries within her or his body a large number of chemical contaminants, for which the health impact is not precisely known. Many chemicals, such as persistent organic pollutants (POPs) and mercury, have the ability to travel over large distances through air, migratory species or water currents and have been found in high concentrations areas, such as the Arctic, where these chemicals are not used. Some POPs can remain in the body for more than 50 years. Mercury, being an element is infinitely persistent.

2. Sources of chemicals and their releases vary highly. Some of the long-lasting/persistent chemicals residing in our bodies are pesticides and some are intentionally produced, such as pesticides or flame retardants and used in other forms of industrial processes and in many products used daily. Polychlorinated dibenzodioxins and dibenzofurans, are unintentionally generated, from the manufacturing processes in the chemical industry, combustion or high temperature processes in the presence of carbon, oxygen and chlorine. Whatever their sources, harmful chemicals enter the environment and food chain.

3. At the end of their life, chemicals are recycled or disposed as part of waste. For example, the amount of electrical and electronic waste (e-waste) containing harmful chemicals is growing rapidly in developing as well as in developed countries. The inappropriate management of such waste, for example through open burning, poses negative impacts on human health and the environment. It is critical to manage this waste in an environmentally sound manner so that harmful chemicals are not released into the environment.

4. The Global Chemicals Outlook (UNEP 2012) showed that the production, use and disposal of chemicals are rapidly increasing in developing countries and countries in economic transition. These rapid changes increase economic opportunities and also risks to human health and the environment if it is not matched by enhanced programmes and initiatives for sound chemicals and waste management. The cost to national economies of human and environmental exposure to harmful chemicals is often unrecognized, but can be substantial as shown in the UNEP's Cost of Inaction report (UNEP 2013). The Global Chemicals Outlook called for urgent and coordinated actions at an international, national, regional, corporate and civil society level so that the sound management of chemicals is perceived as essential throughout their life cycle to decouple sustainable development advances and to maximize societal benefits from the potential and growing risks of chemicals to human health and the environment.

#### *Global Efforts to Address Harmful Chemicals and Waste*

5. In the past decades, governments have established a global regime to address harmful chemicals and waste through the negotiation of a number of Multilateral Environmental Agreements (MEAs) and non-binding instruments. The sixth replenishment period of the GEF Trust Fund (July 2014 to June 2018; GEF-6) coincides with a period of a rapidly evolving

chemical and waste management global agenda and changing needs of developing countries and countries with economies in transition (CEITs). Details of the major developments are described in Annex 3.

6. The last three Conferences of the Parties (COPs) to the Stockholm Convention added 11 new POPs. There are at least three candidate chemicals which could be added at COP 7 in 2015. Urgent global action is required to eliminate the production and consumption of all these chemicals. At its sixth session in May 2013, the COP requested the GEF, in the context of the guidance to the GEF, to consider increasing the overall amount of funding accorded to the chemicals focal area in GEF-6 (decision SC-6/20).

7. The Minamata Convention on Mercury, which designates the GEF as an entity comprising the financial mechanism, was adopted at the Diplomatic Conference in Kumamoto and Minamata, Japan, in October 2013. Ninety-four countries have signed the Convention and one country has accepted the Convention. The convention is expected to come into force before the end of the GEF-6 period. The Diplomatic Conference has invited donors to the GEF Trust Fund to contribute through the sixth and subsequent replenishments additional financial resources adequate to enable the GEF to support activities to facilitate the rapid entry into force and effective implementation of the Convention (Resolution 2 in the Final Act of the Conference of Plenipotentiaries).

8. The Montreal Protocol on Substances that Deplete the Ozone Layer controls about 100 anthropogenic chemicals used worldwide in industrial processes and consumer products. First signed in 1987, the treaty has now achieved universal ratification – all 197 UN Member States – making it the most widely ratified treaty in United Nations history. To date the Montreal Protocol and its financial mechanism, the Multilateral Fund with assistance from the GEF, have enabled reductions of over 97% of all global consumption of controlled ODS.

9. The 27th UNEP Governing Council (decision 27/12) in February 2013 noted an integrated approach to address the financing of the sound management of chemicals and waste, underscoring that the three components of an integrated approach, mainstreaming, industry involvement and dedicated external finance are mutually reinforcing and that they are all important for the financing of sound management of chemicals and wastes. The decision also invited the GEF in the context of the 6th replenishment process to revise its focal area structure and strategy in order to address the chemicals and wastes agenda, and to consider ways of further strengthening its relations with the conventions it serves as a financial mechanism.

10. UNEP's Governing Council decision 27/12 further reiterated its request to the UNEP Executive Director to facilitate and support a country-led process on the challenges of and options for further enhancing cooperation and coordination in the chemicals and wastes cluster in the long term. This process may as part of its efforts also seek to explore avenues towards ensuring the best and most efficient use of increasingly scarce financial resources at the global, regional and national level.

***Rationale and Approach***

11. The GEF will continue to play a catalytic role in leveraging budgetary resources from national governments and incentivizing the private sector to contribute more to the achievement of elimination and reduction of harmful chemicals and waste.

12. Greater awareness of the impacts, including the health impacts, of harmful chemicals and waste needs to be communicated to policy makers at the national level so that sound management of chemicals and waste is fully integrated into national budgets and sector level plans. Such awareness raising also needs to be made to negotiators and policy makers in the broader field of sustainable development at the global level recognizing the cross cutting nature of sound management of chemicals and wastes in different sectors and its inherent impact of a sustainable future for all. Therefore, efforts are underway by governments to ensure that sound management of chemicals and wastes becomes an integral part of the discussions of the post-2015 sustainable development agenda, including the Sustainable Development Goals. The issue must be taken up not only by ministries of environment but by ministries responsible for planning, finance, industry, technology, innovation, health, women, children, and labour. This shift would systematically increase the visibility of these issues using assessments of the cost of inaction on chemicals and waste and the impact on the productivity and health of impacted communities. The allocation of resources from national budgets, and increased participation and contributions from the private sector will allow GEF interventions to be sustained after the projects and programs are completed. This way the GEF can become a true catalyst for sustainable and sustained behavioural change.

13. To achieve transformational change and be effective in a global market, the GEF interventions need to seek closer integration with global supply chains ensuring that products crossing national borders are free of global priority substances that otherwise enter into markets and recycling chains. These interventions will need to integrate the private sector more closely due to the primary role the sector has in the production and use of chemicals.

14. Another encouraging area of work is Green Chemistry, which is defined as the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. Green Chemistry and life cycle analysis of organic and inorganic chemicals are receiving more attention from producers and consumers of potentially toxic chemicals. With the advent of the Green Chemistry Council, greater emphasis, globally, is being placed on sustainable policies, technologies and best practices in the life cycle of toxic chemicals. This area of work can help to address products that contain the chemicals controlled by MEAs.

15. The GEF will also seek to encourage projects that combine multiple focal areas and trust funds to help deliver multiple benefits within the chemical and waste cluster and with other focal areas. For example, with the GEF as the financial mechanism of the Mercury and the Climate Change Conventions, there are opportunities to explore co-benefits of carbon and mercury emissions reduction at coal-fired power plants. Other examples of eligible topics include: Climate-Chemical Nexus (Clean Cities, Green Industry), and Chemical-Natural Resource Nexus (Healthy Ecosystems, Smart Agriculture, Clean Rivers, Lakes and Oceans, sustainable management of forests). Another example is the opportunity for the financial mechanisms of the GEF and Montreal Protocol Multilateral Fund to cooperate on mobilizing resources to maximize the climate benefits of the hydrochlorofluorocarbons (HCFC) phase-out and ODS destruction.

16. In order to incentivize countries and stakeholders to expedite and scale up action to eliminate and reduce chemicals and waste, the following innovative programming options may be used in implementing the strategy: private sector partnerships; performance-based financing and incentives; support for civil society initiatives; consultation with vulnerable and innovative constituencies such as women's groups and indigenous peoples, and encouraging the use of regional centres under the chemical and waste Conventions to execute projects and assist in the development of regional projects. The options complement the traditional GEF financing instruments, and can be applied as appropriate. Examples of how chemicals and waste will take advantage of the innovative programming options are listed in Annex 2.

17. Private sector cooperation and its involvement in projects and programs are important in the GEF chemicals and waste focal area. The chemical focal area has in the past demonstrated successful private sector engagement and has attracted significant private sector co-financing. This focal area will seek more projects that propose innovative engagement models with the private sector, and that complement public sector support rather than replace or minimize its importance. Further descriptions on private sector partnerships are included in Annex 2.

***Gender***

18. Gender refers to the social roles that men and women play and the power relations between them, which may have a profound effect on the use, management, and exposure to chemicals. Depending on values, norms customs and laws, men and women in different parts of the world may have different exposure to chemicals. Consistent with the GEF *Policy on Gender Mainstreaming* and the GEF-6 approach on gender mainstreaming, GEF projects funded under this strategy will not only acknowledge gender differences within their design but determine what actions are required to promote both women and men's roles in chemical management, disproportionate chemical exposure and vulnerability, as well as sustainable alternatives. This will involve the use of gender analysis as part of the socio-economic assessment during project preparation; and the use of gender disaggregated project-level indicators where relevant. Given that the knowledge base on gender and chemicals management is still evolving and being codified, the focal area will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in chemicals projects. The focal area will also monitor and track the GEF core gender indicators which will be aggregated at the corporate level.

19. Efforts to ensure the sound management of chemicals within a context of sustainable development have important gender dimensions. In daily life, men, women, and children are exposed to different kinds of chemicals in varying concentrations. Levels of exposure to toxic chemicals—and resulting impacts on human health—are determined by social as well as biological factors. Determined by social roles, women, men, and children are exposed differently to toxic chemicals in daily life. The differences include the kinds of chemicals encountered as well as the level and frequency of such exposures. In addition men, women, and children vary in their physiological susceptibility to the effects of exposure to toxic chemicals.

20. It is therefore critical to raise awareness about the linkages between chemical exposure, human health, environmental threats, and gender differences in risks and impacts. Integration of gender considerations throughout all stages of a country's process to strengthen its national chemical management regime will ensure that women's and men's, concerns and experiences are taken into account in the design, implementation, monitoring and evaluation of chemical

management policies and programmes, so that they can benefit equally and gender inequality is not perpetuated. Women's participation in decision-making is seen as a requirement to assure full participation in decision making.

## Goal and Objectives

*Long-term goal*

21. The GEF-6 chemical and waste strategy's long term goal is to prevent the exposure of humans and the environment to harmful chemicals and waste of global importance, including POPs, mercury and ozone depleting substances, through a significant reduction in the production, use, consumption and emissions/releases of those chemicals and waste.

*Scope of the GEF-6 strategy on chemicals and waste*

22. For the purpose of the GEF, "Chemicals" in the strategy refer to chemicals controlled under the Stockholm Convention, Minamata Convention and Montreal Protocol as well as those covered by SAICM. "Waste" refers to waste generated from the production, use and consumption of the chemicals covered by the MEAs for which the GEF is the financial mechanism and other harmful wastes as appropriate in other chemical conventions, the Montreal Protocol and SAICM.

23. The GEF-6 chemicals and waste strategy targets harmful chemicals and waste regulated, or, in other ways covered under legally binding MEAs for which the GEF is the financial mechanism. The strategy is based on the guidance to the financial mechanism, as adopted by the conferences of the parties of the respective MEA[58], and takes into account activities regarding the environmentally sound management of chemicals and waste under non-binding instruments, with a view of supporting the implementation of legally binding instruments. For example, the GEF, on a voluntary basis, provides funding to assist CEITs to phase out ozone depleting substances under the Montreal Protocol and indirectly supports the implementation of the Basel Convention through addressing POPs waste under the Stockholm Convention and the Rotterdam Convention through addressing information exchange on trade and movement of POPs and POPs waste.

*Strategic Objectives and Programs*

24. The GEF-6 chemicals and waste strategy encompasses a broad range of opportunities. The strategy seeks to combine environmentally safe technologies and systems with financial and organizational mechanisms, policies, and practices that help countries move towards innovative, rapid, transformational change. The GEF-6 strategy is based on two strategic objectives that in combination will build and sustain capacity, opportunity, and means to meet the goals of eliminating harmful chemicals and waste. These two strategic objectives contain six programs, which encompass activities to be supported by GEF funding (Figure 1). An integrated approach to cover multiple programs would be supported as well as being based on a single program.

[58] The programming of activities under the Stockholm Convention in GEF-6 will be based on the consolidated guidance to the financial mechanism, as adopted by the Conference of the Parties at its sixth meeting pursuant to decision SC-6/20 (available at: http://chm.pops.int/Implementation/FinancialMechanism/GuidanceGuidelines/tabid/682/Default.aspx).

25. Contents of each objective and program are described below. Outcomes, outputs and indicators of each program are described in the Results Framework.

**CW Figure 1 - Strategic Objectives and Programs**

| | | |
|---|---|---|
| ***CW 1: Develop the enabling conditions, tools and environment for the sound management of harmful chemicals and wastes*** | Program 1 | Develop and demonstrate new tools and economic approaches for managing harmful chemicals and waste in a sound manner |
| | Program 2 | Support enabling activities and promote their integration into national budgets and planning processes, national and sector policies and actions and global monitoring |
| ***CW 2: - Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances*** | Program 3 | Reduction and elimination of POPs |
| | Program 4 | Reduction or elimination of anthropogenic emissions and releases of mercury to the environment |
| | Program 5 | Complete the phase out of ODS in CEITs and assist Article 5 countries under the Montreal Protocol to achieve climate mitigation benefits |
| | Program 6 | Support regional approaches to eliminate and reduce harmful chemicals and waste in LDCs and SIDS |
| **INNOVATIVE PROGRAMMING OPTIONS** | | |

### *CW 1: Develop the enabling conditions, tools and environment for the sound management of harmful chemicals and wastes*

26. This objective will help countries develop and strengthen the enabling conditions, tools, and environment to remove the barriers that prevent or slow the adequate management of harmful chemicals and wastes. This objective will develop policy, legislative, financial, economic, technical and technological tools that will remove barriers to scaling up interventions, including access to finance. The objective will contribute to helping countries develop effective systems for ensuring occupational safety and health. The respect for fundamental worker rights are given due consideration as well, with particular attention paid to the working conditions of women (as child-bearers) given the high rate of birth defects in many of these communities. This objective, through sound data, analysis, and policy frameworks, also seeks to address the need for enabling conditions to mainstream chemicals and waste management concerns into the national budgets, national planning and policies, and development agenda as well as sector policies.

*Program 1: Develop and demonstrate new tools and regulatory along with economic approaches for managing harmful chemicals and waste in a sound manner*

27. This program applies to all chemicals and waste included under this strategy, with priority placed on actions required under the Stockholm and the Minimata Conventions. It will support the development, testing and demonstration of technologies, alternatives, techniques, best practices, legislative and policy tools, finance models, private sector engagement models and economic tools.

28. Demonstration and validation for new, environmentally-sound, and climate-resilient technologies will be encouraged, based on the guidance on BAT/BEP from the Stockholm and Minimata Conventions.

29. The GEF may support the following initiatives under this program:

(a) Demonstration and transfer of effective and where appropriate innovative environmentally safe chemical and waste reduction and elimination technologies, including emerging chemical and waste issues of global concern (e.g. lead in paints, endocrine disruptors, hazardous substances within the life cycle of e-products, nanotechnology and manufactured nanomaterials, and chemicals in products)

(b) Development and demonstration of private sector partnerships, economics instruments and financing models that can achieve large scale and long-term investment in the reduction of production and use and emissions of harmful chemicals, including cleaning up contaminated sites, closure and/or repurposing of hazardous chemical manufacturing and waste management

(c) Promotion of sustainable production and consumption practices to de-couple economic growth and resource use from the use of POPs and other chemicals of concern (e.g. heavy metals including mercury and lead, and e-waste generation)

(d) Action on new POPs particularly in the context of e-waste and chemicals in products

(e) Promotion of Green Chemistry particularly in the context of SAICM

(f) Development of frameworks for cost recovery from the private sector for environmental clean up

*Program 2: Support enabling activities and promote their integration into national budgets, planning processes, national and sector policies and actions and global monitoring*

30. This program will help countries report to the conventions and develop plans for meeting their obligations under the conventions. This program only applies to the Stockholm Convention and the Minamata Convention. The following enabling activities are eligible for funding under this program:

(a) Minamata Convention initial assessment activities, including assessment of legislation and policies in regard to the implementation of the Convention, initial inventory of Mercury, identification of emission/release sources of Mercury, and assessment of the institutional and capacity needs

(b) Artisanal and Small Scale Gold Mining (ASGM) National Action Plans (NAPs)

(c) Stockholm Convention National Implementation Plans (NIPs) and NIP updates

31. This program will also promote integration of the findings of enabling activities and convention reporting into national and sector level development planning. Such integration will help inform countries on establishing reduction targets and leveraging resources from all sectors for the sound management of harmful chemicals and waste. It is envisaged that the embedding of the findings and processes of the enabling activities will rely on and be complementary to the foreseen institutional structures of the special program component of the integrated approach in UNEP Governing Council decision 27/12.[59]

32. This program will also support global monitoring that help to measure the effectiveness of the Conventions to which the GEF is the financial mechanism. This program will also integrate gender analysis where appropriate.

***CW 2: Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances***

33. While CW 1 focuses on the development of enabling conditions, this objective will help countries reduce and eliminate harmful chemicals and waste, i.e. POPs, Mercury, and their waste, along with other chemicals of global concern, thereby reducing the exposure of humans and the environment to harmful substances. Specifically, this objective will support the implementation of environmentally-safe, low-carbon technologies, techniques, and practices that

[59] In February 2013, The UNEP Governing Council decided to invite governments to consider establishing, through an existing institution, a special programme, funded by voluntary contributions, to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm conventions, the future Minamata Convention and the SAICM, noting that each respective governing body would have to determine the participation of its entity in the special programme (GC 27/12).

will be necessary for chemicals and waste elimination and management. The integration of sound management of chemicals and waste into other focal areas would be supported under this objective.

*Program 3: Reduction and elimination of POPs*

34. This program will assist eligible parties to reduce and eliminate POPs listed in the Stockholm Convention. Projects in this program must propose activities that bring about measurable reduction of POPs. The program will support the application of technologies, techniques and approaches for eliminating stockpiles of POPs, POPs in products, and POPs containing waste, including e-waste. In addition, the impacts of climate change on the effectiveness of these technologies, techniques, practices, and approaches will need to be considered as appropriate, as well as any adverse impacts on vulnerable populations such as the poor, women, and children, the disabled and indigenous communities.

35. In accordance with Convention Guidance, the programme will take into account the specific deadlines set forth in the Convention, including the following areas[60]:

(a) Elimination of the use of polychlorinated biphenyls in equipment by 2025

(b) Environmentally sound waste management of liquids containing polychlorinated biphenyls and equipment contaminated with polychlorinated biphenyls, having a polychlorinated biphenyls content above 0.005 per cent, in accordance with paragraph 1 of Article 6 and part II of Annex A of the Convention, as soon as possible and no later than 2028

(c) Elimination or restriction of the production and use of newly listed persistent organic pollutants

(d) Elimination of the production and use of DDT, except for parties that have notified the Secretariat of their intention to produce and/or use it

(e) For parties that produce and/or use DDT, restriction of such production and/or use for disease vector control in accordance with World Health Organization recommendations and guidelines on the use of DDT and when locally safe, effective and affordable alternatives are not available to the party in question

(f) Use of best available techniques for new sources in the categories listed in part II of Annex C of the Convention as soon as practicable but no later than four years after the entry into force of the Convention for a party

36. In addition to time bound areas above, in response to Convention Guidance, and in areas where the activity has a direct benefit to a convention obligation, the GEF may support the following initiatives under this program:

(a) Elimination of stockpiles, and were applicable production of DDT, obsolete pesticides and new POPs (Article 6)

(b) Management and phase out POPs

[60] See paragraph 4 of decision SC-6/20

(c) Environmentally sound management of POPs-containing wastes in accordance with the Basel Convention and its relevant technical guidelines

(d) Reduction of emissions of unintentional POPs (UPOPs) (Article 5)

(e) Introduction of alternatives to DDT for vector control including approaches to improve their safe and rational use for public health

(f) Introduction of non-chemical alternatives

(g) Integrated pesticide management including in the context of food security

(h) Application of green industry, or sound chemicals management along the supply chain

(i) Design of products and processes that minimize the use and generation of hazardous substances and waste

37. Projects with significant investment, for example, treatment technologies such as alternatives to large-scale incineration, implementation of supply chain management and Green Chemistry, may be considered when there are both large-scale leveraging of national and bilateral resources and strong long-term national commitments.

*Program 4: Reduction or elimination of anthropogenic emissions and releases of mercury to the environment*[61]

38. The GEF has supported a number of projects intended to inform the intergovernmental negotiation process that led to the adoption of the new Mercury treaty. This program will extend the work done in GEF-5 to demonstrate the reduction of mercury in key sectors where urgent actions are required.

39. In GEF-6, this program will address the following issues in a manner consistent with the Convention. The Intergovernmental Negotiating Committee (INC) and the COP may accord priority actions of these through guidance to the GEF.

(a) Reduction, and where feasible elimination, of the use of mercury and mercury compounds in ASGM, and emission and releases to the environment of mercury from such mining and processing, consistent with Article 7 of the Minamata Convention on Mercury.

(b) Control, and where feasible reduction of mercury from emissive sources listed in Annex D of the Minamata Convention

(c) Control of mercury in the global trade, where appropriate, including mercury in products

(d) Reduction, phase out or elimination of mercury used in certain industrial processes

(e) Sound management of mercury storage

[61] Guidelines on the use of GEF 6 funding will be further defined once the COP defines further guidance as per Article 13 of the Minamata Convention and Resolution 2 of the Final Act of the Conference of Plenipotentiaries.

(f) Introduction of frameworks for the environmentally sound management of mercury-containing wastes taking into account any relevant guidelines developed under the Basel Convention

(g) Development of inventories of mercury emissions.

(h) Introduction of life cycle management of mercury

*Program 5: Complete the phase out of ODS in CEITs and assist Article 5 countries under the Montreal Protocol to achieve climate mitigation benefits*

40. For Program 5, which covers the work of the GEF on the Montreal Protocol, replacement of ODS dependent technology should aim to be with energy efficient and low carbon technology, preferably using near-zero global warming potential (GWP) substances. The GEF currently provides assistance under this program for the completion of the phase-out of HCFCs in countries with economies in transition (CEITs). This program will support HCFC phase-out management plans (HPMPs) and production sector plans. Based on data reported to the Ozone Secretariat, it is projected that 303.44 ODP tons remain to be phased out in these countries.[62]

41. Under GEF-5, consideration of the nexus and potential synergies between ozone protection, climate mitigation, and chemicals program was initiated (e.g. GEF/C.42/09), and in 2013 the Secretariats of the GEF and Multilateral Fund have made substantial progress in discussions on cooperation between the two financial mechanisms to mobilize future resources to maximize the climate benefits of the HCFC phase-out and ODS destruction. Such cooperation could extend to other developing country Parties operating under Article 5 of the Montreal Protocol ("Article 5 countries"), with possible GEF assistance forming complementary financing to that being provided under the Multilateral Fund.

42. There are significant climate benefits from replacing HCFCs with climate friendly alternatives and replacement of HCFC dependent technology with more energy efficient technologies. Work is underway to phase out HCFCs in countries considered Article 5 Parties in the Montreal Protocol. The Multilateral Fund provides financial assistance to these countries, as per the guidelines of the Executive Committee, the most cost-effective alternative that may or may not fully address the most climate benefits that could potentially be achieved from this process. As a result, Article 5 Parties have approached the GEF to co-finance additional activities in HCFC phase-out program which could cover climate co-benefits that are not eligible for funding under the Multilateral Fund, and would introduce those elements that would maximize climate and ozone benefits. For this purpose, special programs will be established to promote linkages in Article 5 countries to assist in the phase-out of HCFCs. This will only apply to manufacturing of appliances and foams, and the refrigeration servicing sector and will cover only energy efficiency gains, i.e. climate mitigation benefits, associated with action being taken using

[62] The GEF will continue to support the following seven countries (Azerbaijan, Belarus, Kazakhstan, Russian Federation, Tajikistan, Ukraine and Uzbekistan) that are eligible to receive funding for the phase out of ozone depleting substances in GEF-6 to meet the 2020 control measures of the Montreal Protocol. The remaining eligible consumption of HCFCs in these countries in ODP tons is 303.44 ODP tons, of which 267.24 ODP tons is from the Russian Federation.

other funding sources by the Article 5 countries, only when these elements are clearly not eligible for funding under the Multilateral Fund.

43. "Banks" of ODS are the total amount of these substances contained in existing equipment (e.g. refrigeration, air conditioning), chemical stockpiles, insulating foams and other products not yet released to the atmosphere. Emissions of ODS banks by leakage or at their end of use damage the ozone layer and contribute significantly to global warming since the ODS concerned, mainly chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), have high global warming potentials (GWPs). Emissions due to releases of ODS from banks are not covered by either the Montreal Protocol or the United Nations Framework Convention on Climate Change (UNFCCC).

44. The Multilateral Fund has financed a limited number of ODS destruction projects in Article 5 countries, mainly pilot projects. That financial mechanism does not have the mandate to fund projects to address ODS destruction in a comprehensive manner, therefore it is evident that tackling the bulk of ODS banks will require additional sources of funding. The opportunity to benefit from the most cost effective approach to this problem is before 2020-2025, therefore other contributions and forms of non-MLF will help catalyze ODS bank destruction activities in Article 5 Parties. The GEF may support the destruction of ODS banks in GEF-6 to leverage ozone and climate benefits which are not funded by the Multilateral Fund. .

*Program 6: Support regional approaches to eliminate and reduce harmful chemicals and waste in LDCs and SIDS*

45. The least developed countries (LDCs) and small island developing states (SIDS) typically have limited capacity to deal with harmful chemicals and waste. In many instances, they are also geographically isolated and remote. These countries have historically had difficulty leveraging sufficient resources from their own budgets, the private sector, and other bi-lateral donors to deal with harmful chemicals and waste. They also have difficulties in accessing GEF funds in comparison to other countries. Given these facts, different approaches for solutions are required for these types of countries.

46. This objective will allow programming for resources to LDCs and SIDS to help them create the enabling environment, and to take action to eliminate and reduce harmful chemicals and waste. The objective will encourage regional and sub-regional cooperative action and south-south cooperation for developing regional approaches. This objective will also encourage civil society participation in enabling activities to ensure broad recognition of public needs and requirements.

47. The program will raise awareness of the linkages between chemical exposures, the effects on human health and the environment, and gender differences in risks and impacts. In most communities, people are unaware of their routine, even daily, exposure to toxic chemicals in the workplace, at home, and in the general environment. Thus, raising awareness of the immediate health risks of toxic chemicals used in agriculture, mining, health services, manufacturing, and household activities in least developing countries is a necessary, overarching intervention that informs work at all subsequent stages of the policy process.

48. It is intended that a programmatic approach be used in utilizing resources in this objective so that economies of scale can be achieved which would otherwise make programming in these countries difficult and in some cases prohibitive.

49. The regional and sub-regional approaches will cover:

(a) Enhanced capacity to manage harmful chemicals and waste at a regional/sub-regional level

(b) Regional-level plans for the management of harmful chemicals and waste

(c) Technologies and techniques suitable to LDCs and SIDS

(d) Innovative management practices suitable to LDCs and SIDS

## Chemicals and Waste Resource Envelope

## CW Table 1 - Focal Area Objectives and Indicative Allocations by Program

| | | | Indicative Allocation Status Quo Scenario ($ million) | Indicative Allocation Status-quo Plus Scenario ($ million) |
|---|---|---|---|---|
| CW 1 | Program 1 | POPs | 20 | 24 |
| | | Mercury | 10 | 18 |
| | | SAICM etc | 8 | 14 |
| | | *sub-total* | *38* | *56* |
| | Program 2 | POPs | 20 | 20 |
| | | Mercury | 30 | 30 |
| | | *sub-total* | *50* | *50* |
| | ***Total CW 1*** | | ***88*** | ***106*** |
| CW 2 | Program 3 | POPs | 305 | 308 |
| | Program 4 | Mercury | 70 | 94 |
| | Program 5 | ODS | 25 | 25 |
| | Program 6 | POPs | 25 | 28 |
| | | Mercury | 20 | 33 |
| | | SAICM etc | 2 | 6 |
| | | *sub-total* | *47* | *67* |
| | ***Total CW 2*** | | ***447*** | ***494*** |
| Total Allocation | | | ***535*** | ***600*** |

### Allocation by Convention

| Convention | Status Quo Scenario ($ million) | Status-quo Plus Scenario ($ million) |
|---|---|---|
| POPS | 370 | 380 |
| Mercury | 130 | 175 |
| SAICM | 10 | 20 |
| ODS | 25 | 25 |
| **Total Chemicals** | **535** | **600** |

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**Results Framework**

**Goal:**

(a) Promote the sound management of chemicals throughout their lifecycle to minimize adverse effects on the global environment and health of both women and men.

**Impact:**

(a) Phase out and reduction of Persistent Organic Pollutants, Mercury and Ozone Depleting Substances and other chemicals of global concern.

**Indicator:**

(a) Tons of Persistent Organic Pollutants, Mercury and Ozone Depleting Substances and other chemicals of global concern phased out or reduced over the investment or impact of the project.

**Corporate Level Indicator:**

(a) 80,000 tons of Persistent Organic Pollutants including PCB, obsolete pesticides and DDT disposed of in an environmentally sound manner.

(b) 1000 tons of mercury reduced.

(c) 303.44 ODP tons of HCFC phased out.

**Gender Indicators:**

(a) Focal Area projects will use and incorporate GEF Gender Indicators, which will be monitored and aggregated at the Focal Area portfolio and Corporate levels. [63]

[63] Refer to the core GEF Gender Indicators identified under the gender section of the Strategic Positioning Paper for GEF-6 replenishment. The five Gender Indicators are:
i) Percentage of projects that have conducted gender analysis during project preparation.
ii) Percentage of projects that have incorporated gender sensitive project results framework, including gender sensitive actions, indicators, targets, and/or budget.
iii) Share of women and men as direct beneficiaries of project.
iv) Number of national/regional/global policies, legislations, plan, and strategies that incorporates gender dimensions (e.g. NBSAP, NAPA, NAP, TDA/SAP, etc).
v) Percentage of Project Implementation Reports (PIR), Mid-term Evaluation (MTE) and Terminal Evaluation Reports (TER) that incorporate gender equality and women's empowerment and assess results/progress.
Projects will use gender-sensitive indicators and sex-disaggregated data, and it will be systematically recorded, reported and integrated into adaptive management responses at the project level. GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in projects, including through Annual Monitoring Review and Learning Missions.

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| **CW 1**<br>*Develop the enabling conditions, tools and environment to manage harmful chemicals and wastes* | **Program 1:**<br>Develop and demonstrate new tools and regulatory along with economic approaches for managing harmful chemicals and waste in a sound manner | Outcome 1.1: Countries have appropriate decision-making tools and economic approaches to promote the removal of barriers preventing the sound management of harmful chemicals and waste<br><br>*Indicator 1.1.1: Number of demonstrated tools for Mercury, new POPs and emerging chemicals and waste issues*<br>*Indicator 1.1.2: Prioritized list of actions for reducing/eliminating chemicals and waste*<br><br>Outcome 1.2: Innovative technologies are successfully demonstrated, deployed and transferred<br>*Indicator 1.2: Number of technologies demonstrated, deployed and transferred* |
| | **Program 2:**<br>Support enabling activities and promote their integration into national budgets, planning processes, national and sectoral policies and actions, and global monitoring | Outcome 2.1: Countries have undertaken Minamata Convention initial assessments activities and ratified the Minamata Convention<br>*Indicator 2.1.1: Number and quality of initial assessment activities completed*<br>*Indicator 2.1.2: Number of ratifications of the Minamata Convention*<br><br>Outcome 2.2: Countries have assessed their ASGM sector and developed a National Action Plan (NAP) to address the Mercury use in the ASGM sector.<br>*Indicator 2.2: Number of NAPs completed*<br><br>Outcome 2.3: All countries have completed their NIP updates under the Stockholm Convention and have established a sustainable mechanism to update them in the future<br>*Indicator 2.3.1: Number of NIP updates completed*<br>*Indicator 2.3.2: Number of countries that have integrated the NIP updated process into their own budget.*<br><br>Outcome 2.4: Global monitoring for POPs strengthened and established for Mercury<br>*Indicator 2.4: Number of baseline monitoring stations established and number of laboratories strengthened.* |
| **CW 2**<br>*Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative* | **Program 3:**<br>Reduction and elimination of POPs | Outcome 3.1: Quantifiable and verifiable tonnes of POPs eliminated or reduced<br>*Indicator 3.1: Amount and type of POPs eliminated or reduced* |
| | **Program 4:**<br>Reduction of anthropogenic emissions and releases of | Outcome 4.1: Mercury is reduced<br>*Indicator 4.1: Amount of Mercury reduced* |

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| *technologies/substances* | mercury to the environment | |
| | **Program 5:**<br>Complete the phase out of ODS in CEITs and assist Article 5 countries under the Montreal Protocol to achieve climate mitigation benefits | Outcome 5.1: Countries have phased out Ozone Depleting Substances and replace them with zero ODP, low GWP alternatives<br>*Indicator 5.1.1: Tonnes of ODS phased out*<br>*Indicator 5.1.2: Tonnes of $CO_2$ equivalent phased out* |
| | **Program 6:**<br>**S**upport regional approaches to eliminate and reduce harmful chemicals and waste in LDCs and SIDS | Outcome 6.1: Capacity of LDCs and SIDS to manage harmful chemicals and waste is enhanced<br>*Indicator 6.1: The extent to which countries have successfully mainstreamed chemical priorities into national budgets.*<br><br>Outcome 6.2: LDCs and SIDS regional/sub-regional plans include and account for the management of harmful chemicals and waste.<br>*Indicator 6.2: Number of regional/sub-regional level plans developed that account for chemicals and waste issues* |

## Annex I. Innovative Programming Options in the GEF-6 Chemicals and Waste Strategy

### Private sector partnerships

1. In GEF-6, all focal area strategies will be identifying and establishing stronger partnerships with the private sector to attract and retain private sector investment. For chemicals and waste this has been an area that has not been fully explored but it will be a robust area of activity in GEF-6. In some cases, for example in PCB management projects where private utilities are involved the utilities sustain the reduction and management of PCB while in others where disposal equipment or facilities are provided the sustainability ends when resources for disposal ends with the project. Another example is Green Chemistry, which may benefit from private sector partnership as leading multi-national corporations are expanding research and development into green chemistry and pursuing greater partnerships for management of chemicals.

2. A major aim in GEF-6 for this focal area will be to explore and develop and demonstrate models that integrate the private sector in chemical and waste projects thereby achieving the scale of engagement and investment that is needed to scale up action on chemicals and waste.

3. Consistent with the GEF-6 private sector strategy, partnerships may take several forms, including assessment and fortification of enabling environments; certification and standards programs; engagement across global supply chains; application of risk-mitigation tools; and engagement of institutional investors. Each of these forms will provide options for GEF agencies and countries to apply the best tools to the situation at hand when designing a project. As identified in the private sector strategy, each model may be used in different ways across several categories of private sector players, including capital providers, financial intermediaries, and industry partners (large corporations, SME, and innovators).

4. Recent GEF intervention in hospitals and the way they manage waste is one example. Another innovative approach will invite private sector project ideas that can be submitted and cleared through agency processes. Countries will be encouraged to hold competitive bidding for innovative projects as appropriate. In some cases, countries will be encouraged to provide endorsement letters to agencies in advance to allow rapid approval and project launch. This approach enables the GEF network to engage with potential private sector partners with innovative ideas that need demonstration and validation. Examples of projects that would be amenable to this approach include:

(a) Innovative environmentally sound waste reduction projects

(b) Technology demonstrations

(c) Recycling and waste-management through micro, small and medium enterprises

(d) Green development - industries and cities

(e) Innovative approaches to cleaning up and remediation of contaminated sites

(f) Economic instruments and business models to facilitate income generation for chemicals and waste management including waste recycling and extraction of valuable constituents of waste

(g) Life cycle and green chemistry investments

5. For risk-mitigation and structured financing tools, the GEF Chemicals Network will explore the development of non-grant instruments. For example, innovative e-waste technologies do not have a proven track record and may be perceived as too risky for commercial investors. The GEF and its agency partners will explore what types of risk-mitigation tools could help catalyze investment in e-waste technologies.

6. Furthermore, chemicals and waste projects will need to ensure that small and medium-sized enterprises (SMEs) are prepared to properly manage POPs and ODS, and to take up new technologies for reduction and disposal. SMEs could use small grants or loans to promote for example, to improve waste management practices, encourage recycling and reuse of plastics, e-waste, adopt integrated pest and vector management, improvements in preventing contamination from ASGM through provision of low cost technological solutions. Chemicals and waste projects will certainly be considered for the SME Small Grant/Loan Program.

**Performance-based financing and incentives**

7. The GEF may introduce performance-based financing and incentives, where countries/agencies receive GEF resources based on successful project implementation and demonstration of results. For chemicals and waste, this option may be applied in cases including the following:

(a) *Project-based:* Performance-based financing could be utilized on individual projects. Projects that require strong measurement and verification to ensure global environmental benefits, such as phase out of chemicals, may be suitable. This would be at the invitation of the country and would be subject to a performance based agreement between the GEF and the country which may specify phase out targets.

(b) *Sector or economy-wide:* Countries or cities that commit to national or sector-based emission reduction targets (in toxic equivalents (TEQ/g) for UPOPs, ODP for Ozone, and Tons for Mercury and POPs) may utilize performance-based financing. Countries commit to the measurement and verification of meeting the targets, and are paid if the targets are achieved. Countries will have flexibility in project design, implementation modalities and selection and implementation of emission/release reduction options. This approach offers flexibility for countries and agencies to develop programs and reduces the review process in the GEF since the details of project design will be left to the country and agency.

**Support for civil society initiatives**

8. In GEF-6, civil society organizations can submit, through one of the GEF implementing agencies, and receive approval for projects focused on elimination of hazardous chemicals and waste. Projects where CSO's and NGO's are included as executing partners may be given priority for funding in GEF-6. Additionally partnership with this sector will also be supported through GEF Small Grant Program (SGP) where a proportion of funding given to initiatives on

chemicals and waste will be shared equally with other GEF SGP national priorities such as climate change and biodiversity.

**Support for Convention Regional Centers**

9. The GEF has received guidance from the COP of the Stockholm Convention to provide the opportunity for Regional Centers set up under the Stockholm Convention and Basel Convention to execute projects. The GEF is cognizant of the country driven approach for project identification and development and recognizes that the regional centers can only be involved on the invitation of countries. The GEF encourages countries to use the regional centers either as executing agencies or providers of technical assistance in the development and implementation of their projects particularly in regional projects where these centers would have a comparative advantage

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## Annex II. Development of Multilateral Environmental Agreements in the Harmful Chemicals and Waste Area

1. Governments recognize that concerted action at the international level is required to address certain substances or practices of global concern. Over the past 30 years, governments have agreed a number of multilateral environmental agreements (MEAs) that regulate harmful chemicals and waste. Most governments have ratified these conventions. The GEF-6 (2014 to 2018) coincides with a period of a rapidly evolving chemical and waste management global architecture and changing needs of developing countries and CEITs. The following are the conventions relevant to the GEF and their major developments.

2. **Legally-binding instruments where the GEF serves as the financial mechanism**

(a) **The Stockholm Convention on Persistent Organic Pollutants (POPs)**
This convention controls the production and use of POPs. The convention originally had 12 controlled POPs substances including DDT, PCB and Dioxins and Furans. The convention also has a process for adding new substances when there is scientific evidence that the substances exhibit persistent organic pollutant characteristics. As the financial mechanism for this convention the GEF finances programs and projects to assist developing country parties and CEITs to meet their convention obligations.

During the last three Conferences of the Parties to the Stockholm Convention, 11 new POPs have been added to the Stockholm Convention (nine at COP 4 and one each at COP 5 and COP 6). There are candidate chemicals, which are expected to be added at COP 7. Urgent global action is required to eliminate the production and consumption of all these chemicals. At its sixth session in May 2013, the COP requested the GEF to consider increasing the overall amount of funding accorded to the chemicals focal area in GEF-6 (Decision SC-6/20).

(b) **The Minamata Convention on Mercury**
The Minamata Convention on Mercury was adopted and opened for signature at the Diplomatic Conference in Kumamoto and Minamata, Japan, in October 2013. Ninety-two countries and the European Union have signed the Convention so far of which more than 50 are developing countries and CEITs. The Convention is expected to come into force before the end of GEF-6 period. The Convention identifies the GEF as an element comprising the financial mechanism of the Convention.

The Diplomatic Conference adopted resolutions on arrangements in the period prior to the coming into force of the convention (the 'interim' period). In the resolutions on financial arrangements, the Conference invites donors to the GEF Trust Fund to contribute through the sixth and subsequent replenishments of the GEF Trust Fund additional financial resources adequate to enable the GEF to support activities to facilitate the rapid entry into force and effective implementation of the Convention.

3. **Legally binding instruments where the GEF does not serve as the financial mechanism but has provided support up to today**

(a) **The Montreal Protocol on Substances that Deplete the Ozone Layer**

The Montreal Protocol controls ozone depleting substances (ODS) which are the substances that created the hole in the Earth's protective ozone layer. This Protocol has its own financial mechanism, the Multilateral Fund, which aids developing countries (Article 5 Parties) with Protocol compliance. The GEF, since its pilot phase, provides support to parties with economies in transition to meet their obligations under the Montreal Protocol.

4. **Legally binding instruments where the GEF provides indirect support through its programming in POPs**

(a) **The Basel Convention on Controlling Transboundary Movements of Hazardous Wastes and their Disposal**

This Convention pre-dates the Stockholm Convention and deals with the international movement of hazardous waste and its disposal. All POPs waste are treated as Basel Wastes so that in providing support to the parties to the Stockholm Convention for disposal of obsolete POPs and POPs waste, the GEF has indirectly supported the implementation of the Basel Convention.

(b) **The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade**

This convention deals with the control in trade of hazardous and harmful chemicals. All POPs for the purposes of trade are controlled under this convention so the GEF in providing support to parties to control the trade of POPs through import and export bans has indirectly supported the implementation of this convention.

5. **Non-legally binding instruments: Strategic Approach to International Chemicals Management (SAICM)**

(a) The development of multiple chemical conventions was recognised as creating fragmentation in the global management of harmful chemicals and waste particularly since the conventions are not uniformly ratified. In 2006 governments adopted the SAICM in an attempt to harmonise global management of harmful chemicals and waste through a cradle to grave approach. The SAICM process identifies emerging chemical issues of global concern and provides a framework to operationalize the implementation of an integrated approach to managing harmful chemicals and waste. The GEF has been invited at each of the International Conference on Chemicals Management to support the priorities identified by the SAICM. The GEF has provided support to the management of e-waste, lead in paints and chemicals in products.

(b) In September, 2012, the 3rd International Conference on Chemicals Management (ICCM 3) invited the GEF in the process of the 6th replenishment to consider the priorities and activities identified in the SAICM in support of the achievement of

its objectives. This invitation was without prejudice to the on-going process on the UNEP Executive Director's draft proposal on an integrated approach to the financing of the sound management of chemicals and wastes.

6. **Integrated Approach for Financing Chemicals and Waste**

(a) Given the increased need for sustainable, predictable, adequate and accessible financing for the chemicals and wastes agenda, the consultative process on financing options for chemicals and waste was launched by the UNEP Executive Director at COP 4 of the Stockholm Convention. After the consultation, the Executive Director presented an integrated approach that was noted by the 27th UNEP Governing Council (decision 27/12) in February 2013. The decision underscores that the three components of an integrated approach, mainstreaming, industry involvement and dedicated external finance, are mutually reinforcing and are all important for the financing of sound management of chemicals and wastes. The decision also invites the GEF in the context of the 6th replenishment process to revise its focal area structure and strategy in order to address the chemicals and wastes agenda, and consider ways of further strengthening its relations with the conventions if serves as a financial mechanism.

(b) Furthermore, Decision 27/12 of the UNEP Governing Council invites the conference of the parties to the Basel, Rotterdam and Stockholm conventions to take steps to implement, and the Conference of Plenipotentiaries of the Minamata Convention to consider, an integrated approach for the purposes of the respective conventions, as appropriate. In May 2013, the COPs to the Basel, Rotterdam and Stockholm conventions noted with appreciation the invitation made by the UNEP Governing Council to the GEF and invites donors to increase their financial contributions during the sixth replenishment, taking into account the increasing needs for the sound management of chemicals and wastes.

(c) In addition to the above global architecture, other emerging chemicals and waste issues will require interventions geared towards the priority needs of countries. The Scientific and Technical Advisory Panel (STAP) of the GEF has identified a number of priority emerging chemical issues of global concern not yet covered or adequately addressed by MEAs. These include heavy metals (other than Mercury), polycyclic aromatic hydrocarbons (PAHs), mixture effects, open burning, endocrine disruption and marine debris, followed by a range of other issues. Interactions between issues (such as PAHs and open burning) allows for multiple possibilities of interventions at various levels.

## INTERNATIONAL WATERS FOCAL AREA STRATEGY

### Background

#### *Status of International Waters*

1. International waters, including freshwater and marine waters, are an increasing priority worldwide as these valuable resources face growing pressures. Freshwater scarcity and stress is increasing in most regions. Approximately 80% of the world's population is already exposed to high levels of threat to water security, and approximately 1.2 billion people live in river basins where human water use has surpassed sustainable limits.[64] Communities and ecosystems associated with 65% of global river discharge are already under moderate to high threat.[65] Projected increases of food demands from having to feed about 9 billion people by 2050, growing energy demands, combined with increasing climate variability and change will create additional pressure on water resources. These pressures will disproportionally affect the world's poor, particularly women who are often responsible for the health and welfare of children, the elderly and the infirm. Securing supply for water, energy, food and ecosystems and addressing associated trade-offs of this nexus is a challenge that has recently gained increasing international attention. Addressing sectoral needs can both be a driver for cooperation and as well as a challenge on national and regional level.

2. Pollution further reduces the water available for human use, which is accelerating the water crisis. Globally, more than 80% of collected and discharged wastewater is not treated. Non-point pollution sources, such as from fertilizer application and animal farming, are other major contributors to pollution.[66] The number of ocean hypoxic zones driven by nutrient loads and pollution have increased dramatically over the last 30 years, and there are now nearly 500 known hypoxic areas worldwide. Other land-and ship-based pollutants, such as high sediment loads, heavy metals, organic pollutants, and invasive species further contribute to the deteriorating ocean health.

3. Global fisheries are under threat. Fish and fishery products are among the most traded food commodities worldwide, accounting for about 10 percent of total agricultural exports and one percent of world merchandise trade in value terms. Marine ecosystem services are an important source of economic benefits, with fishery capture alone worth approximately $102 billion and aquaculture $119 billion in 2010.[67] One of the key issues affecting the oceans is unsustainable fishing practices with almost 30% of assessed global fish stocks considered collapsed or overexploited in 2009, while a further 57% are fully exploited and need to be carefully monitored and managed to prevent overexploitation.[68] About 25% of stocks from Areas Beyond National Jurisdiction (ABNJ) are considered overexploited or collapsed. Overall, the annual global economic loss from unsustainable fishing is estimated to be $50 billion, with an

[64] Molden, 2007.
[65] C.V. Vorosmarty, et al., 2010
[66] J. Rockström et al, 2009.
[67] FAO, 2012. State of the World Fisheries and Aquaculture.
[68] FAO Review of the state of world marine fishery resources. FAO Fisheries and Aquaculture Technical Paper No. 569. Rome, FAO. 2011. 334 pp.

estimated net present value of $2.2 trillion.[69] Yet at the same time, with sustained growth in fish production and better distribution channels, world fish food supply from freshwater and marine fisheries has increased substantially during the last five decades, showing an average growth rate of 3.2% per year in the period 1961–2009 outpacing the increase of 1.7% per year in the world's population.[70]

4. These threats to freshwater and marine ecosystems are further compounded by a range of natural and anthropogenic stressors. These include ocean acidification, sea-level rise, and similar impacts related to climate change, together with increasing urban and especially coastal development, off-shore energy production and shipping. Coastal ecosystems, including wetlands, deltas, reefs, and mangroves, are particularly threatened by habitat destruction and land based sources of pollution.

5. The cumulative effects of these multiple stressors lead to serious degradation of freshwater and marine ecosystems and their services, causing significant harm to livelihoods of communities and suppressing local, national and regional economic prospects in the absence of cross-sector, ecosystem-wide approaches to address these challenges.

***The Challenge***

6. More often than not, water knows no political boundaries. Globally, more than 270 watersheds cross the political boundaries of two or more countries. These watersheds cover about one-half of the earth's land surface and are home to about 40% of the global population[71]. The majority of the world's Large Marine Ecosystems (LMEs) are shared by two or more countries. LMEs are responsible for over 85% of the world's fish catch and provide a suite of ecosystem services such as essential spawning habitats, natural coastal protection, and carbon sequestration and storage.

7. Needs for food and water are rising, yet water needs associated with expansion of agricultural land for greater food production are rarely addressed in basin management. Agriculture accounts for 70% of global freshwater use and for over 85% in many of the least developed countries that are eligible for GEF support. Globally, fish provide about 4.3 billion people with about 15 percent of their intake of animal protein.[72] Driven by population growth and by the rise in dietary standards, food production alone will have to increase by 70% within the next 40 years to meet this growing demand.[73] Collaboration with government agencies and a range of private sector players – from large investors to groups of farmers – to transparently link land and water rights will be key to assuring sustainable supply of freshwater.

[69] Arnason et al., 2008 ; Sunken Billions, World Bank and FAO, 2008
[70] FAO, 2012. State of the World Fisheries and Aquaculture.
[71] UNDP, International Waters – Delivering Results, 2012. (http://web.undp.org/gef/document/IW_DeliveringResults%202012.pdf)
[72] FAO, 2012. State of the World Fisheries and Aquaculture.
[73] Water for food - Water for life – A Comprehensive Assessment of Water Management in Agriculture, International Water Management Institute, 2007.

8. While the demand for freshwater is increasing, about 40% of the water used in irrigated agriculture – the main consumer of water globally – is lost as runoff.[74] At the same time about one-third of the food produced globally for human consumption is wasted every year (approximately 1.3 billion tons).[75] Using water more efficiently by increasing "crop per drop" outputs and reducing pre- and post-harvest food waste will be essential to feeding a growing global population. In addition, influencing consumer awareness and behaviour – mainly of the growing middle class – in terms of the local and global impact of dietary preferences, food wastage, and wise water use needs to be part of the effort. Considering how entrenched gender roles are, women and girls' involvement is essential given their key role in family health, nutrition, food consumption choices, in addition to their role in agriculture.

9. Groundwater governance frameworks remain weak. While heavily-used surface water resources are already regulated in many regions, the same is not the case for groundwater. Groundwater provides a buffer to climate variability, and acts as storage to be used during droughts. More frequent droughts combined with expanded food production make groundwater an increasingly important source of water for agriculture, accentuating the pressure on aquifer resources. Yet, groundwater levels in many areas are rapidly declining as water abstractions continue to increase. Groundwater also contributes significantly to global river flows and important ecosystems. There is therefore an urgent need for more systematically linking surface and groundwater governance systems and management, while also understanding that the geographical extent of river basins and underlying aquifers rarely coincide. The technical and governance needs are challenging and need to be more comprehensively addressed in the GEF International Waters (IW) portfolio.

10. The global socioeconomic impacts of hypoxia and eutrophication are estimated to be between $200 to $800 billion per year. Nutrient burdens transported from land to the ocean have roughly tripled since pre-industrial times, and are projected to at least double by 2050 under a business as usual scenario, with the majority of stresses affecting the developing world. Nitrogen deposition is one of three 'planetary boundaries' that have already been transgressed and an estimated 70% reduction in the release of reactive nitrogen will be needed to reverse these trends. Hence, there is an urgent need to integrate nutrient management needs into water and coastal resource management strategies.

11. Massive losses of wetlands and coastal habitats require global action. The loss of riparian and coastal habitats, including "blue forests" — mangroves, salt marshes, sea grasses and seaweed — has negatively impacted community livelihoods, food security, and the capacity of these habitats to sequester carbon. These habitats represent only 1% of coastal and marine areas globally, yet they store carbon at estimated rates several times higher than the more widely recognized terrestrial carbon sinks, such as tropical forests. The loss of riparian and coastal habitats also means the loss of ecosystem services, such as flood regulation and coastal protection from increasing storms, as well as the loss of important fish nursery and spawning grounds. Many species caught on the high seas, for example, depend on near-shore habitats for spawning

[74] FAO, 1993; and N. S. Halim, John Hopkins University, 2010.
[75] FAO, Food waste footprint – Impacts on natural resources, 2013

or rearing[76] and many other species prey on schools of fish that live in coastal waters. At the same time coastal wetlands also provide filtration functions of harmful toxins. Urgent global action is, therefore, needed to preserve the vital functions provided by these high priority ecosystems. The Ramsar Convention on Wetlands is of critical importance for securing the conservation and wise-use of wetlands and water resources, including freshwater, saline inland waters, and shallow marine waters.[77]

12. Commitments to improve ocean health are rising, but actions remain slow. The challenges and consequences of inaction were reiterated by the world leaders at the recent UN Conference on Sustainable Development (Rio+20) recognizing that "oceans, seas and coastal areas form an integrated and essential component of the Earth's ecosystem and are critical to sustaining it." They stressed "... the importance of the conservation and sustainable use of the oceans and seas and of their resources for sustainable development, including through their contributions to poverty eradication, sustained economic growth, food security and creation of sustainable livelihoods and decent work, while at the same time protecting biodiversity and the marine environment and addressing the impacts of climate change." The Outcomes Document[78] has identified oceans and the ecosystem services they provide as a critical part of all three dimensions of sustainable development. The world leaders committed themselves to "protect, and restore the health, productivity and resilience of oceans and marine ecosystems, to maintain their biodiversity, enabling their conservation and sustainable use for present and future generations, and to effectively apply an ecosystem approach and the precautionary approach in the management, in accordance with international law, of activities having an impact on the marine environment to deliver on all three dimensions of sustainable development."

### *Gender*

13. Gender considerations and especially strengthening the role of women is essential not only to achieving MDGs but also sustaining development outcomes of investments in shared water bodies. The number of female headed households is increasing worldwide, yet women and girls have less access to land, irrigation, education, and other rights and resources than men, while women often are the primary income earners and caretakers of children, the elderly and the sick. Inclusion of women in local, national, and regional governance structures, access to credit, and secured access rights to water, land, fisheries, and other resources are essential for reaching long term sustainable development outcomes.

14. To ensure that a gender perspective is successfully incorporated into international waters management, policies, and activities at regional, national and local levels, it is vital to advocate for the active involvement of both women and men. The development and reform of supportive policy and legislative frameworks and institutional capacity building is at the heart of the GEF's international waters portfolio approach for the improved management of transboundary waters. GEF support within this strategy will assure that gender aspects are part of the social analysis

[76] For example, southern Bluefin tuna juveniles congregate in Australian near-shore waters. Also, 25% of all fish species and up to 12% of the world's fisheries are associated with coral reefs (Spalding et al., 2001).
[77] The Ramsar Convention defines wetlands fairly broadly, to include "areas of marine water the depth of which at low tide does not exceed six meters.".
[78] http://www.uncsd2012.org/thefuturewewant.html and http://sustainabledevelopment.un.org/index.php?menu=1624

during project preparation and investments are designed to take differentiated gender roles into account and implementation and results are tracked accordingly.

*Drivers*

15. *Increasing and competing demands on freshwater and marine resources.* Climate change, population growth, and growing global demand for food and other vital resources as well as consumer choices are placing increasing pressures on freshwater and marine aquatic resources, connected ecosystems and their management. Rising demands for irrigation water combined with higher variability in rainfall, for example, will lead to ever greater demands on groundwater, thus decreasing its buffer capacity in times of drought and leading to increased salt water intrusion in coastal areas. In addition, most of the global freshwater resources are shared by more than one country. Uncoordinated development and exploitation of water resources, together with well increasing pollution, all contribute to global water stress and degradation of coastal areas and oceans.

16. *Lack of incentives for sustainable management of freshwater and marine resources.* The nature of traditionally common pool resources in which resource use benefits individuals at the cost of the public has contributed to the lack of sustainability in several sectors, including agriculture, fisheries and coastal development. Consequently, a common driver behind the accelerating degradation of freshwater and marine environments is the inability of markets to sustainably develop and manage open-access resources such as those found in the ocean. In addition, the widespread failure to account for water use across the entire life cycle of products and supply chains, the perverse effects of direct and indirect subsidies, coupled by the lack of accounting for the opportunity costs of water use, all lead to further market distortions and unsustainable use of freshwater and marine resources. A recent study from the Stockholm Environment Institute stated that "…the ocean is the victim of a massive market failure. The true worth of its ecosystems, services, and functions is persistently ignored by policy makers and largely excluded from wider economic and development strategies…" The cumulative, annual economic impact of poor ocean management is estimated to exceed $200 billion dollars. Mismanagement is compounded by $15–$30 billion a year in subsidies to an inefficient fishing industry. Not only will the WSSD target of "maintaining or restoring stocks to levels that can produce the maximum sustainable yield where possible and not later than 2015" not be met, but also the relevant CBD Aichi targets will be in jeopardy without concentrated and timely intervention.

***Rationale and Approach***

17. GEF experience has shown that cooperation on shared waters helps build mutual respect, understanding, and trust among countries and promotes peace, regional security and economic growth. Therefore, transboundary cooperation is essential, albeit invariably complex. Historical relations and political imbalances between riparian countries, cross-sectoral interdependencies, and conflicting water use needs, together with global trade and deterioration of key environmental parameters, all enter into this complex equation. To complicate the challenge further, transboundary water management will increasingly need to address the existing links with climate resilience and disaster risk management. Transboundary management will also be

necessary to tackle the increasing severity and frequency of floods and droughts, together with higher demand for water associated with expanded food production.

18. Sustainable water management will be essential to achieve the MDGs on eradicating extreme poverty and hunger, and to ensure environmental sustainability. This effort requires integrated governance frameworks for land and water use – i.e. integrated management of both 'green' and 'blue' water. Furthermore, the sustainable management of surface and groundwater should take account of the goals of Chapter 18 of Agenda 21, which addresses the needs of water related ecosystems, their biodiversity, and services those ecosystems provide, and the Dublin principles which also explicitly call for empowerment of women in water resources management.

19. As stressed in the outcome document of the UN Rio +20 summit, water and ocean resources are central to sustainable development, and effective management of water variability, ecosystem changes, and the resulting impacts on livelihoods in a changing climate is central to climate–resilient and robust green growth and the post-2015 development agenda.[79]

20. The IW focal area helps countries jointly manage their transboundary surface water basins,[80] groundwater basins, and coastal and marine systems to enable the sharing of benefits from their utilization. Through the IW focal area, the GEF attends to a unique demand in the global water agenda: fostering transboundary cooperation and building trust between states that often find themselves locked in complex and long-lasting water-use conflicts.

21. The GEF Council approved the long-term goal for the IW focal area within its 1995 Operational Strategy. This goal and GEF's strategic approaches remain relevant. The goal of the IW focal area is *to promote collective management for transboundary water systems and subsequent implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services*.

22. The global environment benefits targeted by the IW focal area are related to transboundary concerns, including: (i) multi-state cooperation to reduce threats to international waters; (ii) reduced pollution load in international waters from nutrient enrichment and other land-based activities; (iii) restored and sustained freshwater, coastal, and marine ecosystems goods and services, including globally significant biodiversity, as well as maintained capacity of natural systems to sequester carbon; and (iv) reduced vulnerability to climate variability and climate-related risks, and increased ecosystem resilience.

23. The IW focal area is directly addressing a number of planetary boundaries that have been or may soon be exceeded: the boundaries for human interference with the nitrogen cycle, global freshwater use, and ocean acidification. Management of fresh and marine waters also directly relates to boundaries on chemical pollution, biodiversity, and land use.[81] While current

[79] See also post 2015 thematic consultations on water ( http://www.worldwewant2015.org/water) and the outcomes of the High Level Forum on World Water Day, The Hague, 2013.
[80] The GEF is taking an ecosystems based approach to the management of transboundary waters – hence the term water basin - or its equivalent on marine side - is used in most cases throughout the text to underline this approach (e.g. freshwater basin, groundwater basin, large marine ecosystem).
[81] Rockström et al, 2009 (a and b).

freshwater withdrawals have not exceeded the limit for consumptive freshwater use,[82] a 2050 world of more than 9 billion people and changing dietary requirements will transgress the safe operating space of humanity, leading to a series of ecological collapses of riverine, coastal, and lake ecosystems.[83]

24. Numerous international conventions, treaties, and agreements address international waters. The architecture of marine agreements is especially complex, and a large number of bilateral and multilateral agreements exist for transboundary freshwater basins. There is also a network of specific regional legal instruments as well as several regional seas conventions and protocols. There is growing potential for fostering multistate-cooperation on shared river basins and aquifers through new developments in international legal frameworks on transboundary water systems. The United Nations Convention on the Non-navigational Uses of International Watercourses is expected to enter into force soon. In addition, the recent decision of the Parties to the United Nations Economic Commission for Europe (UNECE) Water Convention enable accession of non-UNECE member states to the Convention. Furthermore, guidance on the governance of transboundary aquifers is provided through the UN General Assembly Resolution 63/124 and draft articles on the 'law of transboundary aquifers' annexed therein.[84] Related conventions and agreement in other areas — among them the UN Convention on Biological Diversity, the RAMSAR Convention, the UN Convention on the Law of the Sea, and the U.N. Convention to Combat Desertification — complement the global legal framework for international waters. The GEF-6 IW strategy will also be guided by existing and upcoming guidelines, such as e.g. for fisheries, the various FAO guidelines for responsible fisheries.

**Goals and Objectives**

25. One of the key factors behind the long-term success of the IW focal area has been its consistent overall goal and strategic approach. Since the first GEF Operational Strategy of 1995, that approach has included joint fact-finding, multi-country strategic planning, and implementation of governance reforms and investments.

26. The GEF-6 IW strategy has three objectives to achieve its goal of promoting collective management for transboundary water systems (see figure 1):

(a) Catalyze sustainable management of transboundary water systems by supporting multi-state cooperation through foundational capacity building, targeted research, and portfolio learning;

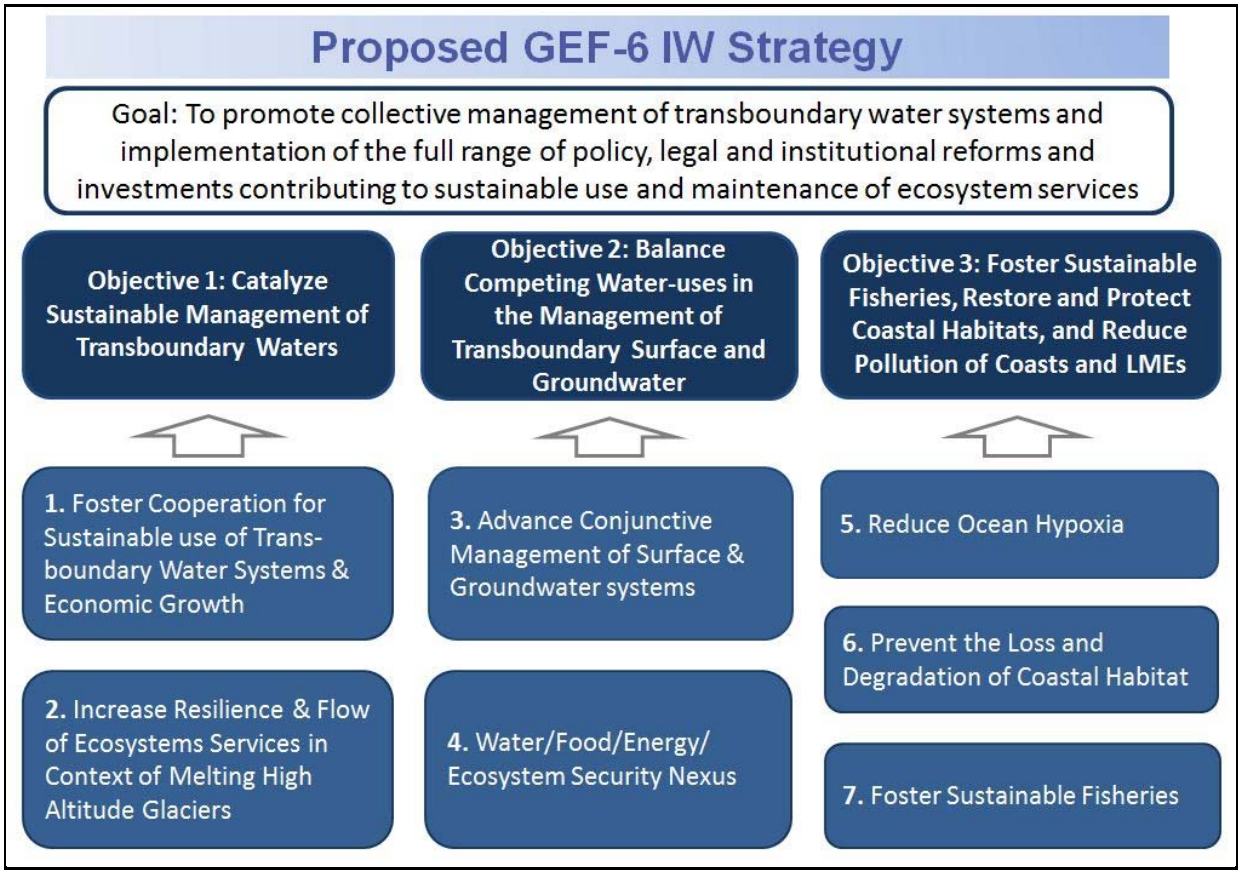
(b) Catalyze investments to balance competing water-uses in the management of transboundary surface and groundwater and enhance multi-state cooperation; and,

(c) Enhance multi-state cooperation and catalyze investments to foster sustainable fisheries, restore and protect coastal habitats, and reduce pollution of coasts and LMEs.

[82] Ibid.
[83] Falkenmark et al., 2012.
[84] This was done via an "amendment to the UNECE Water Convention". The amendment was agreed in 2003, it entered into force on February 6, 2013;
http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-5-b&chapter=27&lang=en

27. Each objective encompasses distinctive, innovative programs that will deliver collective actions and impact on the ground.

**IW Figure 1 - The GEF-6 International Waters Strategy**




***IW 1: Catalyze sustainable management of transboundary water systems by supporting multi-state cooperation through foundational capacity building, targeted research and portfolio learning.***

*Rationale*

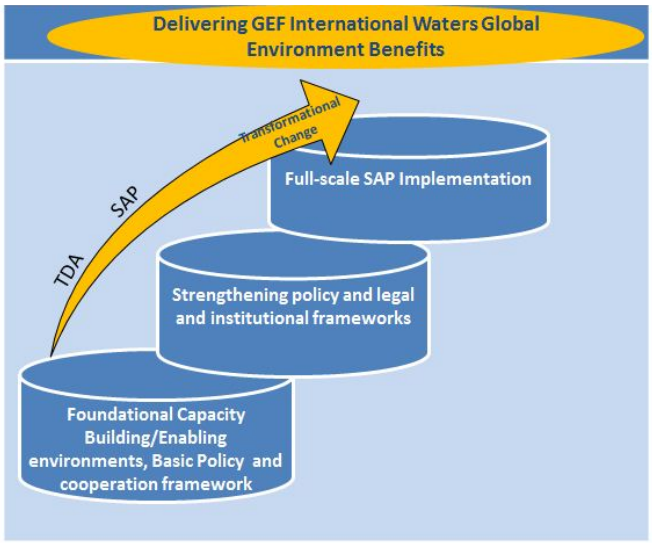
28. GEF is uniquely positioned to support regional cooperation on transboundary waters. Over the last two decades GEF has supported and demonstrated success and progress in supporting countries in multi-country processes. These processes have often led to cooperative legal and institutional frameworks, increased capacities, and agreed actions. Transboundary cooperation contributes to regional integration, development, and stability and enhances GEF IW global environmental benefits. GEF 6 will continue this effort within Program 1 forming the foundation for programs under Objectives 2 and 3. In addition, a targeted program to address urgent needs for cooperation in regions where international rivers are fed by high-altitude glaciers is included (Program 2). GEF-6 aims to support multi-state cooperation and demonstration investments in at least 7 new transboundary water bodies/basins. The GEF IW focal area embraces an ecosystems approach to enhancing cooperation on the governance and

management of surface and groundwater basins, Large Marine Ecosystems (LMEs), and associated natural resources. While stakeholder participation and public awareness efforts are important to all foundational activities, only an enhanced replenishment scenario will allow for more extensive efforts for cross-sectoral capacity building and systematic and broad public awareness campaigns of the benefits of cooperation to underpin the cooperation process.

*Program 1. Foster Cooperation for Sustainable Use of Transboundary Water Systems and Economic Growth*

29. Building broad trust and confidence is essential to facilitate lasting commitments for cooperation for sustainable management of transboundary water systems. Where capacity and agreement among states does not exist, GEF will support foundational processes to create an enabling environment for action. These processes include: facilitating a transboundary dialogue process to derive a shared vision for collective action; moving from perceptions to agreed facts on pressures and drivers of environmental degradation within the transboundary water-body through participatory and cross-sectoral Transboundary Diagnostic Analyses (TDAs); facilitating legal and institutional frameworks for coordinated or collaborative action; enhancing stakeholder participation processes; and formulating Strategic Action Programs (SAPs), including agreed reforms and investments. The TDA/SAP process will continue to play a critical role in GEF-6. A critical component of TDAs/SAPs is that they involve a range of stakeholders, including ministries, academia, civil society groups and the private sector (e.g. local business councils, groups of individual entrepreneurs such as farmers unions, SMEs, women's organizations, and national industry groups).

**IW Figure 2 - International Waters Focal Area Approaches**




30. Although many socially constructed barriers still need to be overcome in order to facilitate both women's and men's involvement in water resource decision-making and management, traditional gender roles have often been successfully challenged by developing women's capacities to manage water interventions, providing them with opportunities to fill leadership roles, and improving their economic conditions. The involvement of women water users in stakeholder consultations and forums demands specific attention and approaches.

31. The TDA process forms a foundation for formulating, prioritizing, and agreeing on priority concerns within regionally agreed, country-driven, and country-owned SAPs, which are adopted on the ministerial level. SAP implementation — through Objectives 2 and 3 — directly addresses key drivers of degradation and unsustainable uses of water and related natural resources and assures long term sustainable development and a move to a green economy (see figure 2). GEF support is essential to fostering partnerships among development partners within a common

approach of support to riparian countries. These foundational processes will prioritize a cross-sectoral, interdisciplinary approach in TDA/SAP formulation.

32. Entry points to mainstream gender in SAPs can include the addition of a statement of political will or commitment to gender consideration in SAP implementation; the consideration of gender-sensitive actions; the addition of a section on cross-cutting issues covering gender training, communication, legislation, capacity building at field level, sex-disaggregated data collection and research on gender issues; or the earmarking of a specific budget for gender-related activities at the level of projects and strategic actions.

33. Agreements in complex transboundary settings most often require a long-term process of dialogue. While in some cases GEF foundational processes will lead to the formulation of legal and/or institutional frameworks and the creation of regional institutions, in other cases getting all parties around the table in an active dialogue to define such frameworks and/or create interim institutions will be a highly successful output in itself. Foundational support from the GEF will include building the capacity of the emerging regional institutional mechanisms and national counterpart ministries, including inter-ministerial committees. Innovative modeling and dispute resolution tools and approaches have been successful in moving from perception to facts to opportunities in terms of transboundary resource uses and will continue to be supported as appropriate.

34. Demonstrating benefits from cooperation early in the process is essential to building and maintaining momentum for regional cooperation. GEF foundational projects therefore support high visibility, local investments in parallel to longer term regional processes for cooperation. Local government counterparts, private sector, and civil society organizations (CSOs) are often the key implementers of such local demonstrations investments (e.g. through the GEF Small Grants Program or other mechanisms). Gender considerations are mainstreamed within these efforts and assuring access of women in such demonstration investments, as well as gender-differentiated reporting of output indicators. GEF SGPs have demonstrated many best practices on gender mainstreaming and women's leadership and empowerment at local, community level in transboundary basins.

35. GEF 6 will enhance foundational processes and TDA/SAP formulation through information on trade-offs in financial and economic terms, such as economic valuation of use- and non-use values of ecosystems[85]. Ministries of finance and planning, therefore, need to be active partners in national inter-ministerial committees. In this way, the TDA/SAP process in GEF 6 will increasingly be designed to serve as a vehicle to bridge the science policy gap, including through the use of scientific panels, science-policy fora, and dissemination of state-of-the-art methods and tools. GEF 6 will also mainstream assessment of risks from climatic variability and change into the TDA/SAP based on current science and available tools.

36. Engagement in transboundary waters poses an added challenge for substantial private sector investments due to the complexity and related uncertainty of the policy and regulatory environment. Foundational GEF interventions can pave a way to more predictable and stable policies on regional, national, and local levels (e.g. regulation of access to fish, water and land

[85] Including considerations of traditional cultural values, gender differentiation, indigenous peoples, among others.

use). Engagement with industry groups on water savings, pollution prevention along the supply chains and other sustainability commitments, such as product sustainability, will also be explored during GEF-6.

37. Building on IW's success in support of implementation of the Ballast Water Management Convention (through the 'Globallast' project) and the strong partnership with International Maritime Organization (IMO), the GEF will pursue additional activities in support of the International Guidelines on Ships' Bio-fouling. Other new opportunities for expanded collaborations include the expected coming into force of the United Nations Convention on the Non-navigational Uses of International Watercourses and the soon-to-become global UNECE Water Convention.

38. Over a decade of GEF support within the International Water Focal Area has led to a range of experiences, innovations, and lessons. GEF's efforts to harness this knowledge capital and exchange experiences within its learning project – the IW:Learn – have proven highly successful and have been recognized by partners. GEF 6 will step up its knowledge management and learning efforts, work with a broad range of partners, including key NGOs active in international cooperation on freshwater and oceans. This will enhance exchanges between scientists and practitioners within the GEF portfolio, as well as serve as a model for effective knowledge management for other GEF focal areas. Emphasis will be on active learning across the portfolio, enhancing the impact of GEF funded interventions, and South-South experience sharing. GEF-6 aims at a target of at least 75 % of all IW projects to demonstrate active GEF portfolio experience sharing and learning efforts.

39. Large water bodies on global scale may reach tipping points soon. The impacts of crossing the tipping points can be hugely detrimental and timeframes for remedial actions are long and extremely costly to society. GEF will fund a limited number of Targeted Research projects to evaluate the severity of key upcoming, under-researched global threats and looming environmental tipping points and to identify a possible niche for GEF support to address these threats.[86] STAP's role in reviewing and advising of such proposals prior to submission for Council approval will continue to be of critical importance. A recent example of the importance of STAP's work has been the STAP hypoxia report and recommendation to address disruption of the global nitrogen cycle. Under the anticipated replenishment scenarios one to two such projects are foreseen.

*Program 2. Increase the Resilience and Flow of Ecosystem Services in the Context of Melting High Altitude Glaciers*

40. Human populations and ecosystems dependent on water resources in mountain ranges like the Andes, the Himalaya-Hindu Kush, and Central Asia face increased risk as glaciers melt due to climate change. In Asia, for example, glaciers feed many of the region's largest rivers, including the Indus, Ganges, Tsangpo-Brahmaputra, and Mekong. Continued rapid glacial melt could eventually result in both significant decreases of dry season flows as well as in increases frequency and intensity of floods in other periods. If left unattended, melting glaciers will become politically, socially, and economically destabilizing, potentially affecting up to 1.5

[86] Targeted research projects are implemented by GEF agencies – see also GEF/C.9/5

billion people. In Asia alone, 500 million people dependent on the waters from the Himalaya-Hindu Kush may be severely affected by the changing climate. Melting glaciers will also have widespread consequences for priority mountain and lowland ecosystems of global relevance for biodiversity and ecosystem services.

41. Consolidated, multifaceted efforts will address these challenges more sustainably. Synergies with the Climate Investment Fund, Least Developed Countries Fund, Pilot Program for Climate Resilience, other GEF focal areas, and coordinated support to countries by development partners will enhance the impact of specific measures. South-south knowledge exchanges and scientific cooperation among basins facing comparable challenges may further advance regional knowledge and action.

42. GEF's response will result in increased regional cooperation between countries affected by glacial melt in 1-2 high altitude basins through improved and shared information, by enhancing regional dialogues across governments and civil society, by strengthening governance institutions at regional, national, and local levels, and by investing in innovative demonstrations that will introduce resilience-enhancing measures at the local level. IW will support efforts to formulate and implement ministerial agreed regional action programs or sub-basin IWRM plans that will underpin adaptive management strategies. Innovative approaches for increased resilience of people and ecosystems will set in motion the scaling-up of climate resilience strategies in priority risk areas. Socio-economic factors will need to be taken into account in the design of these approaches to address differentiated vulnerability as well as coping strategies of different population groups (incl. by gender, age, income, ethnicity, and other factors).

***IW 2: Catalyze investments to balance competing water-uses in the management of transboundary surface and groundwater and to enhance multi-state cooperation.***

*Rationale*

43. GEF assistance is building on more than two decades of support for foundational activities to catalyze multi-state action and to implement agreed SAPs for interventions in cross-border surface and groundwater basins. While this assistance has led to significant achievements, GEF action has addressed only a fraction of the world's key freshwater basins. Support needs to be stepped up to enhance global environmental benefits and avoid overexploitation of shared resources.

44. GEF-6 will mainly focus on two programs: (i) enhanced institutional effectiveness for conjunctive management of surface and groundwater[87]; and (ii) investments to address the Water/Food/Energy/Ecosystem Nexus aiming at enhancing greater water-food-ecosystem security in 6 -7 transboundary water systems and adoption and/or implementation of national/local reforms and investments identified in SAPs or equivalent in at least 60 % of basin states. GEF support will explore strengthening relevant linkages between waterbody-based institutions and emerging regional institutions/commissions in order to facilitate greater regional integration, cooperation, and contributing to increased regional stability and prosperity. GEF

[87] Conjunctive management is a coordinated and combined use of surface and groundwater to increase the availability of water and to improve the reliability of water supply.

support will continue to address the needs of Least Developed Countries and SIDS to meet their water and development challenges in a changing climate.

*Program 3. Advance Conjunctive Management of Surface and Groundwater through Effective Institutional, Legal, and Policy Measures*

45. GEF-6 will focus support on more effective conjunctive management and sustainable use of transboundary surface and groundwater resources, together with associated ecosystem and the services they provide. Partly due to lack of comprehensive information on groundwater resources and to the invisible nature of groundwater, governance of this resource remains in an incipient stage compared to surface water. GEF 6 will promote a range of institutional measures and investments identified in the SAP at regional, national, and local scale, such as the sustainable functioning of existing joint legal and institutional regional frameworks for surface and groundwater management or supporting new ones. These frameworks will be guided by the principles contained in current international conventions on surface and groundwater.[88]

46. Advancing a sound understanding of the extent and water resources potential of aquifers, together with quality and flow characteristics, will be a necessary first step in many regions. Lack of information often hampers conjunctive groundwater management. Investments in regional and national data and information, and decision support systems will thus form an integral part of GEF-6 support. GEF support will build on and seek cooperation with ongoing efforts supported by development partners, such as the Internationally Shared Aquifer Resources Management initiative led by UNESCO and IAH, and others. Tools and measures to assess climate impacts on recharge areas, storage capacity as buffer against times of droughts, and policy measures and investments to reduce or avoid over-abstraction of surface and groundwater resources and salt-water intrusion in coastal aquifers will all need to be addressed.

47. While all new GEF-supported TDA and SAPs will consider climate variability and change, TDAs and SAPs that have already been completed and that would benefit from the latest climate change science will be updated.

48. GEF-6 will foster dialogue and cooperation with the private sector, particularly regarding initiatives that promote greater transparency and reporting standards,[89] and lead to a decrease in the water footprint arising from such private sector activities and their supply chains as food and beverage production/agroindustry, cotton production, and mining, and reduce pollution externalities. For example, expansion of agricultural land for greater food production and associated water uses, mostly by private sector entities, needs to be transparent and factored into water management strategies at local, national, and basin levels alongside policies to connect land and water rights.

[88] Examples include the soon to become global United Nations Economic Commission for Europe (ECE) Water Convention, the United Nations Convention on the Non-navigational Uses of International Watercourses, which has not entered into force yet, and the UNGA Resolution 63/124 and draft articles on the law of transboundary aquifers annexed therein.

[89] Such as working with and building on the CEO Water Mandate pledging to corporate responsibility actions, such as setting targets for water conservation, cleaner production, and factoring water sustainability considerations into business decision-making, among others.

*Program 4. Addressing the Water/Food/Energy/Ecosystem Security Nexus*

49. GEF support will contribute to increased Water/Food/Energy/Ecosystem security and reduced conflict potential within implementation of agreed basin-/sub-basin SAPs or equivalent regionally agreed development plans. GEF support will strengthen effective and efficient water use and enhance delivery and sharing of environmental and socio-economic benefits in transboundary basins by balancing competing water uses across sectors and borders.

50. The IW focal area will predominantly address the nexus of Water/Food/Ecosystem security, while recognizing the relevance of the entire spectrum of competing water needs within the larger Water/Food/Energy/Ecosystem Security Nexus for transboundary water management. Taking account of this Nexus, rather than solely focusing on IWRM principles, also stresses the explicit role, interests, and leadership of other sectoral players beyond the water sector. This integrated, cross-sectoral approach is required to safeguard water availability and enhance water productivity, water quality, and management and delivery of water and ecosystem services in the long term.

51. The focus on Water and Food and Ecosystem security – including food from freshwater and marine fisheries — provides direct synergy with priority programs within the Land Degradation, Climate Change Adaptation, and Biodiversity Focal Areas that will be leveraged where feasible to achieve transformational impacts. GEF support to energy security in SAP implementation will primarily address studies and activities, including those necessary to establish environmental flow needs to assure enhancement and maintenance of ecosystem services in basin planning and implementation of multi-purpose investments. Attracting private sector capital in such investments will be key, as private investments generally dwarf public investments given a conducive investment climate.

52. Implementation of SAPs or equivalent regional development programs needs to respond to agreed regional and national needs established through a participatory process. Hence it will be impossible to determine a priori specific investment support by GEF and development partners. GEF-6 will focus on implementing measures that enhance conjunctive management; water, food and ecosystem security; and/or maintain ecosystem services together with multi-purpose water resources investments.

53. IW will support innovative approaches and technologies. Demonstration and/or scale-up of innovative approaches will include but will not be limited to: basin-wide ecosystems based approaches to balance competing water needs and sharing of benefits from water and related natural resources across borders and sectors; water efficiency measures; collaborative measures to improve the water quality and reduce pollution of international water bodies; climate resilience enhancing water resources management; nature based approaches and restoration of ecosystem function; and sustainable approaches to aquaculture. In order to address transboundary pollution from industrial, agricultural and municipal sources, including by heavy metals from mining, tanning and/or dying industries, organic pollutants, sediments, as well as introduction of invasive species, regionally agreed regulatory approaches, incentive mechanisms, and innovative technologies involving both public and private sector actors are needed. Therefore, GEF is promoting integrated ‘ridge-to reef’ approaches, including proactive strategies

and innovative investments directed at pollution reduction from different sectors[90] to address hypoxia in lakes and coastal areas. Active stakeholders in these investments include policy makers and civil society, including private sector players such as capital providers, large corporations, SMEs, local business councils and other groups of small scale individual entrepreneurs. GEF supported investments on the ground will be accompanied by gender analysis as part of the socio-economic assessment during project design and will consider the differentiated role of gender with a specific aim to enhance women's access to resources and document how women's participation increases innovation, efficiency and sustainability.

54. In the enhanced replenishment scenario, GEF-6 resources may also be used to leverage private and/or public finance by creating or contributing to piloting basin investment funds to prepare and finance SAP investments with GEF support focusing on enhancing and/or maintaining ecosystem services.

***IW 3: Enhance multi-state cooperation and catalyze investments to foster sustainable fisheries, restore and protect coastal habitats, and reduce pollution of coasts and Large Marine Ecosystems.***

*Rationale*

55. Over more than a decade, GEF LME projects have been piloting and testing how integrated management of oceans, coasts, and estuaries can be implemented through an ecosystem-based management approach. This approach includes five modules of spatial and temporal indicators of the LME namely, (i) productivity, (ii) fish and fisheries, (iii) pollution and ecosystem health, (iv) socio-economics and (v) governance. This five-module indicator approach to the integrated assessment and management of LMEs has proven useful in ecosystem based projects globally. This approach has led to significant progress in capacity building for states choosing to address the multiple stresses on their shared LMEs and coasts. The GEF-6 Strategy will continue to promote and utilize the LME approach as a major organizing principle for SAP implementation in marine and coastal areas with an aim in GEF-6 to support at least 7 SAP implementation processes. Cooperation with partners, such as the Regional Seas Program and, increasingly, Regional Fisheries Management Organizations (RFMOs) will continue in GEF-6, strengthening the protection of marine biodiversity inside and outside of Economic Exclusive Zones (EEZs). The LME approach represents an opportunity to support coordinated responses towards reducing land based sources of marine pollution, habitat protection as well as sustainable fisheries management across all programs. This process is built on cross-sectoral, multi-disciplinary approaches with active participation of and benefitting a range of stakeholders at regional, national, and local level assuring appropriate representation based on socio-economic factors, including income, gender, ethnicity, age, and other factors.

56. The approach described below is suited to also address other focal area concerns, including biodiversity targets, climate resilience,[91] and land degradation; hence, multifocal area and/or multi-trust fund approaches will be applied where of key relevance. Recognizing their

[90] Point and non-point source nutrient pollution is the primary cause of eutrophication of freshwater water bodies, such as rivers, lakes and inland deltas, and of ocean hypoxia. Synergies with the Land Degradation focal area will be built on to address pollution from agricultural land uses in particular.

[91] Such as through LDCF/SCCF

mutual goals, activities under the ABNJ will be complimentary to LME processes. In order to minimize the vulnerability from sea-level rise, displaced fisheries, and other concerns from climatic variability and climate change, GEF support for ICM and LMEs will also consider risks related to these issues as new Strategic Action Programs are implemented.

*Program 5: Reduce Nutrient Pollution Causing Ocean Hypoxia*

57. Most hypoxic zones are a result of run-off from land-based activities to LMEs in developed countries. The expansion of hypoxia and eutrophication is just one result of a global scale disruption of the earth's nitrogen cycle. Dramatic increases in groundwater nitrate levels are another such impact. The challenge presented by the scope of the increasingly perturbed global nutrient cycle remains under-appreciated in both policy and scientific circles, but impacts of such changes on biodiversity, climate, economies, livelihoods, and human health provide convincing arguments to trigger priority actions on possible options that can lead to better nutrient management and related policies.

58. GEF will seek to catalyze a transformation in the nutrient economy that will cumulatively reduce nutrient pollution and coastal hypoxia in 60% or more of all LMEs in GEF-eligible developing countries; a cumulative target of two-thirds or 66% would be aimed at in an enhanced replenishment scenario[92]. Innovative policy, economic, and financial tools, public-private partnerships and demonstrations will be pursued with relevant governments and sectors towards 'closing the loop' on nutrient production and utilization and restoring nutrient balance within planetary boundaries and eliminating or substantially decreasing the extent of dead zones.

59. Without concerted action, the bulk of expected increases in hypoxia and eutrophication will occur in LMEs in GEF-eligible countries. GEF support is designed to result in important impact through investments in these LMEs. Actions under GEF-6 will be closely tied to, and in instances directly combined with, support under the GEF Land Degradation Focal Area.

60. Recognizing the IW portfolio gaps identified in the GEF STAP Hypoxia report,[93] GEF will initiate collaboration through targeted research as well as with the private sector, including capital providers, large corporations, SMEs, and groups of small scale individual entrepreneurs.

61. Where capacity is built and collective action agreed upon, GEF will support national and local strategies and policies, as well as legal and institutional reforms to reduce coastal and upstream point and non-point sources of organic and inorganic nutrients and other key transboundary water pollutants (see program 4). GEF-6 will also finance innovation in sewage treatment to decrease pressures on of freshwater, coastal and marine resources, with the overall goal of promoting ecosystem health, working with the Global Program of Action on Land-based Sources of Marine Pollution (GPA), where relevant. GEF will engage the private sector in developing solutions, especially for agriculture sources of nutrients, aquaculture facilities, and process water from factories.

[92] The target has been estimated based on the number of LMEs that GEF IW presently has nutrient reduction investments plus anticipated investments in GEF-6, as compared with the total number of GEF eligible LMEs that currently are experiencing significant nutrient over-enrichment. It should be noted that the majority of present major hypoxic zones are not in GEF eligible countries.

[93] GEF STAP 2011

*Program 6. Prevent the Loss and Degradation of Coastal Habitats*

62. Since 1980, an estimated 20% of global mangroves have been lost, 19% of coral reefs have disappeared, and seagrasses have been disappearing at a rate of 110 $km^2$ $yr^{-1}$.[94] In addition, climate change is expected to increase the intensity and frequency of severe tropical storms, making the protective role of reefs and mangroves even more critical. This loss of productive habitats is threatening spawning, rearing, and growth areas for marine species and hindering critical functions associated with the process of filtering harmful toxins. Investments in the protection of reefs through establishment of marine protected areas[95] (MPAs) is dwarfed by the avoided investments cost for hard infrastructure, such as seawalls, and co-benefits from tourism and sustainable fisheries.[96] Despite such obvious win-win opportunities, only 1.4% of marine habitats are legally protected.

63. GEF will substantially contribute to preventing further loss and degradation of coastal habitats to achieve an aggregate target of 5 %[97] of the most globally significant marine areas[98] within LMEs into sustainable management and cumulatively bringing 5 % of coastlines in GEF-eligible Large Marine Ecosystems under ICM[99]. GEF's investments have demonstrated the utility of Integrated Coastal Management (ICM) as a tool to promote national, provincial, and local governance reform for improved management of coastal and ocean resources (e.g. in East Asian Seas region). ICM provides a structured, multi-stakeholder approach to tackle the complex threats to coastal habitats on different administrative levels. By leveraging sizable public and private investment in environmental protection and restoration, local ICM reforms supported by national governments have been shown in IW projects to achieve cost-effective outcomes for coastal protection.

64. Furthermore, GEF-6 will support the conservation of "blue forests" within ICM investments with stronger link to MPAs. This support in GEF-6 will lead to protection of critically important ecosystems in globally significant areas[100] and will contribute to meeting the Aichi Targets of the CBD, in particular Target 11 on conservation of 10% coastal and marine areas. GEF will invest in innovative practical applications of spatial planning and management of coastal areas and in some cases adjacent freshwater basins through ICM principles and in coastal habitat protection and/or conservation and mangrove restoration. GEF would also support

[94] Michelle Waycott et al., 2009

[95] According to IUCN , marine protected areas are defined as, "any area of the marine environment that has been reserved by federal, state, tribal, territorial, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein." Based on this definition, no-take zones may be included within marine protected areas.

[96] R. Munang et al, 2013

[97] This target has been based on an estimated percent of the marine areas currently under sustainable management, including Marine Protected Areas (currently 1 - 2 % of coastal and marine areas). Anticipated additional investments in LMEs in GEF-6 will increase the area under sustainable management to 5 %, including supporting expansion of MPAs (following the IUCN definition).

[98] The critically important ecosystems will be defined through the LME approach and will rely on existing data, including but not exclusively on the CBD process defining Ecologically or Biologically Significant Marine Areas (EBSAs), on the FAO initiative defining Vulnerable Marine Ecosystem (VME).

[99] This target has been estimated based on the results from PEMSEA with regard to the # of km of coastline already under ICM compared with the total global GEF-eligible coastline.

[100] Same as footnote 37

investments in sustainable alternative livelihoods, introducing appropriate gender considerations in project design and implementation, together with the, empowerment of local communities. Finally GEF's efforts will contribute to habitat restoration, targeted research, action towards policy, legal, and institutional reforms at the local and national levels, alongside increased enforcement to secure critical coastal/marine habitats.

*Program 7: Foster Sustainable Fisheries*

65. The Food and Agriculture Organization of the United Nations (FAO) estimated that 19% of all marine fish stocks have been overexploited, 8% are depleted, and only 1% are recovering from past overexploitation.[101] The vast majority of the overexploited fisheries are found in developing coastal states and island nations. Illegal, unregulated and unreported (IUU) fishing alone accounts for catches worth as much as $23.5 billion annually — equivalent to about one-fifth of the reported global catch.[102] Loss of critical habitats, pollution (addressed in Programs 5 and 6) and climate changes are also having dramatic effects on fisheries and hence all programs under Objective 3 are complimentary and cannot to be implemented in isolation.

66. The GEF-6 strategy will help to reverse these trends by supporting a more integrated approach to fisheries management ranging from small scale and artisanal fisheries to that practiced by global and regional fishing fleets. The GEF-6 strategy will make use of ecosystem-based approaches, while strengthening fisheries institutions, promoting market platforms, introducing or expanding the use of sustainable standards through the supply chain and, as appropriate, experimenting with and testing the scaling up of rights-based approaches, sustainable mariculture, and MPAs. In addition, effective and coordinated regulation, implementation of international agreements – such as the FAO Port State Agreement, scientific knowledge, and science-based management will be stimulated.

67. Restructuring fisheries management can increase economic output and efficiencies and improve livelihoods and food security by aligning the socioeconomic incentives of fishermen and fishing communities with the biological health of fish stocks. Therefore, fisheries management reform will be considered as an important investment in restoring the health of the world's oceans. This will be particularly relevant in the context of SIDS and those Least Developed Countries where socio-economic development is significantly dependent on the fisheries sector. Throughout these various efforts, the socio-cultural and economic trade-offs of policy and management decisions will be examined and addressed, particularly with respect to issues of access to fish resources and employing traditional knowledge in management decisions.

68. The GEF-6 strategy will encourage long term investments in sustainability and will introduce sustainable fishing practices into 20% of the globally over-exploited fisheries (by volume),[103] taking into account, for example, threats to biodiversity and importance for livelihoods. Progress towards this goal will be monitored using existing and new tools, including

[101] FAO, 2009.
[102] D. J. Agnew at al., 2009
[103] This target is based on the expected number of active GEF- funded LMEs (new and ongoing). When analyzing information from each LME on the following parameters (catch in each LME; % catch considered overexploited; volume overexploited and totals), it is assumed that the LME approach will contribute to the introduction of sustainable fishing practices into 20% of globally over-exploited fisheries.

FAO's review of the status of fish stocks. GEF-6 will support multi-country governance reforms and investments to catalyse transformation in fisheries management within the framework of an integrated LME approach as well as in the high seas and areas beyond national jurisdiction.

69. The GEF IW strategy will, therefore, support the strengthening of Regional Fisheries Bodies including Regional Fisheries Management Organizations, their links to the LME commissions, the regional seas conventions or other form of sustained coordination institutions or intergovernmental processes that are entrusted with the responsibility for management of transboundary fish stocks. This will include enhancing regional and national capacities to monitor and enforce fisheries regulations, preventing the loss of non-target species, and the loss and degradation of critical habitats. GEF will continue pursuing partnerships with national governments and with private sector to further promote innovative, market-based approaches hand-in-hand with national policy reforms fostering good fishing practices and fishery management on LMEs and open oceans.

70. In addition to the multi-country LME approach already adopted and promoted by the GEF, the strategy will also pilot and scale-up successful local initiatives on small-scale coastal fisheries, which collectively have the largest impact on biodiversity, food security and incomes. The GEF-6 strategy will provide space to pilot work that engages multiple actors and stakeholders associated with small-scale, artisanal fisheries as an essential element to promote the ecosystem-based approach to fisheries management. Initiatives will support investments both on the demand side (increased market demand for sustainably harvested fish) and on the supply-side (through effective management tools, government policy reforms, and capacity building). This effort will be driven by local communities, government, and the private sector and will contribute to the implementation of relevant guidelines.[104] This effort will include investments encouraging long-term strategies and will be driven by local communities, government, and the private sector. Scaling-up of successful approaches will be pursued in the context of existing and future investments in priority LMEs. Tools that may be used include promoting private-public partnerships to support ecosystem-based fisheries management, building the organizational and management capacity of small and coastal fishing communities, together with sound business planning for fishing communities (including fishermen, processors, buyers and wholesalers). Successful coastal fishery reforms are expected to aggregate up to an intervention model that could be expanded into other geographic areas at multiple scales.

**International Waters Resource Envelope**

71. Based on a status-quo allocation ($440 million) and an enhanced scenario ($500 million), the proposed indicative breakdown of focal area resources for programming in GEF-6 is presented in Table 1.

[104] Including e.g. the Code of Conduct for Responsible Fisheries (CCRF), the International Instruments and Guidelines for Securing Sustainable Small-scale Fisheries, and the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security.

## IW Table 1 - Focal Area Objectives and Indicative Allocations per Program

| Focal Area Objectives | Focal Area Programs | Indicative Allocation Status-quo Scenario: ($ million) | Indicative Allocation Status-quo Plus Scenario: ($ million) |
|---|---|---|---|
| IW 1 – Catalyze Sustainable Management of Transboundary Water Systems | Program 1: Foster Cooperation for Sustainable Use of Transboundary Water Systems and Economic Growth<br><br>Program 2: Increase Resilience in Melting High Altitude Glaciers | 95 | 100 |
| IW 2 – Balance Competing Water-uses in the Management of Surface & Groundwater | Program 3: Advance Conjunctive Management of Surface& Groundwater Systems<br><br>Program 4: Water/Food/Energy/Ecosystem Security Nexus | 140 | 160 |
| IW 3 – Foster Sustainable Fisheries, Prevent Loss & Degradation of Coastal Habitats, & Reduce Ocean Hypoxia | Program 5: Reduce Ocean Hypoxia<br><br>Program 6: Prevent Loss & Degradation of Coastal Habitats<br><br>Program 7: Foster Sustainable Fisheries | 205 | 240 |
| **Total International Waters** | | **440** | **500** |

**Results Framework**

**Goal:** Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services.

**Impact:** Threats to international waters reduced through catalyzed multi-state cooperation to address concerns of transboundary water systems for most every continent and oceans with special impact on conjunctive management of fresh- and groundwater resources, rebuilding marine fish stocks and protecting coastal habitats globally.

**Indicators**:

(a) Multi-state cooperation and demonstration investments in x # of transboundary water bodies/basins.

(b) Enhanced water-food-energy-ecosystem security and conjunctive management of surface and groundwater in x # of transboundary water systems (implementation of SAPs or equivalent in # of basins).

(c) Reduced nutrient pollution & hypoxia (in % of GEF-eligible LMEs); coastline in GEF-eligible Large Marine Ecosystems under ICM (in %); and globally over-exploited fisheries moved to more sustainable exploitation levels (in %).

**Gender Indicators:**

Focal Area projects will use and incorporate GEF Gender Indicators, which will be monitored and aggregated at the Focal Area portfolio and Corporate levels. [105]

[105] Refer to the core GEF Gender Indicators identified under the gender section of the Strategic Positioning Paper for GEF-6 replenishment. The five Gender Indicators are:
1. Percentage of projects that have conducted gender analysis during project preparation.
2. Percentage of projects that have incorporated gender sensitive project results framework, including gender sensitive actions, indicators, targets, and/or budget.
3. Share of women and men as direct beneficiaries of project.
4. Number of national/regional/global policies, legislations, plan, and strategies that incorporates gender dimensions (e.g. NBSAP, NAPA, NAP, TDA/SAP, etc).
5. Percentage of Project Implementation Reports (PIR), Mid-term Evaluation (MTE) and Terminal Evaluation Reports (TER) that incorporate gender equality and women's empowerment and assess results/progress.
Projects will use gender-sensitive indicators and sex-disaggregated data, and it will be systematically recorded, reported and integrated into adaptive management responses at the project level. GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in projects, including through Annual Monitoring Review and Learning Missions.

**Corporate Level Targets**:

(a) Water/Food/Energy/Ecosystems security and conjunctive management of surface and groundwater enhanced in at least 10 freshwater basins;

(b) 20% of globally over-exploited fisheries (by volume) moved to more sustainable levels.

**IW Table 2 - Results Based Management Framework**

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| **IW 1:** Catalyze sustainable management of transboundary water systems by supporting multi-state cooperation through foundational capacity building, targeted research and portfolio learning. | PROGRAM 1: Foster cooperation for sustainable use of transboundary water systems and economic growth. | Outcome 1.1: Political commitment/shared vision and improved governance demonstrated for joint, ecosystem-based management of transboundary water bodies.<br>*Indicator 1.1.1.: # of SAPs endorsed at ministerial level;*<br>*Indicator 1.1.2: Capacity of transboundary cooperation/ institution built and degree of active participation in national inter-ministry as per IW tracking tool score card*<br>*Indicator 1.1.3: Type and degree of involvement of civil society in transboundary dialogue and formulation of TDA and SAP –incl. NGOs, CSOs, academia, women groups, and private sector players; Public awareness of transboundary cooperation benefits (survey).*<br><br>Outcome 1.2: On-the-ground demonstration actions implemented, such as in water quality, quantity, conjunctive management of groundwater and surface water, fisheries, coastal habitats.<br>*Indicator 1.2.1: # and type of investments at demonstration scale (as reported in IW tracking tool score card.)*<br><br>Outcome 1.3: IW portfolio performance enhanced from active learning/KM/science/experience s<br>*Indicator 1.3.1: Active platform for learning and experience sharing across GEF-IW portfolio and with other GEF-6 relevant transboundary initiatives;*<br>*Indicator 1.3.2. Positive feedback from stakeholders/participants, including civil society representatives and women groups.*<br><br>Outcome 1.4: Targeted research influences global awareness upcoming critical global concerns.<br>*Indicator 1.4.1: Reports and publications and/or uptake of results into GEF IW projects.* |
| | PROGRAM 2 - Increase the Resilience and Flow of | Outcome 2.1: Adaptive management measures identified, agreed and tested in limited transboundary basins/sub-basins with high- altitude melting ice to inform future GEF |

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| | Ecosystem Services in the Context of Melting High Altitude Glaciers | replenishments.<br>*Indicator 2.1.1: Ministerial agreed transboundary action programs or sub-basin IWRM plans for demonstration basin testing of adaptive management strategies* |
| **IW 2:**<br>Catalyze investments to balance competing water-uses in the management of transboundary surface and groundwater and enhance multi-state cooperation. | PROGRAM 3. Advance Conjunctive Management of Surface and Groundwater Resources | Outcome 3.1 Improved governance of shared water bodies, including conjunctive management of surface and groundwater through regional institutions and frameworks for cooperation lead to increased environmental and socio-economic benefits.<br>*Indicators 3.1.1. Level of capacity and sustainability of regional institutions as reported in GEF 6 IW tracking tool.*<br>*Indicator 3.1.2: Functioning inter-ministerial committees at national level as reported in GEF IW tracking tool score card.*<br>*Indicator 3.1.3: # and type of national/local reforms implemented.*<br><br>Outcome 3.2 Increased management capacity of regional and national institutions to incorporate climate variability and change, including improved capacity for management of floods and droughts.<br>*Indicator 3.2.1: Degree to which climatic variability and change in transboundary surface water basins and aquifers is incorporated into updated SAPs as reported in GEF IW tracking tool score card.* |
| | PROGRAM 4. Water/Food/Energy/Ecosystem Security Nexus | Outcome 4.1 Increased water/food/energy/ecosystem security and sharing of benefits on basin/sub-basin scale underpinned by adequate regional legal/institutional frameworks for cooperation.<br>*Indicator 4.1.1: #, results and type of investments within basin/sub-basin Strategic Action Programs or equivalent development plans balancing competing water uses, climate change and promoting conjunctive use of surface and groundwater implemented.*<br>*Indicator 4.1.2: Amount of leveraged finance for SAP/SAP equivalent implementation from public/public-private partnerships.*<br>*Indicator 4.1.3: Measurable water & natural resources related results and socio-economic benefits for target population, both women and men, on basin/sub-basin/ or areas of investments as reported in GEF IW tracking tool score card.* |
| **IW 3**:<br>Enhance multi-state cooperation & catalyze investments to foster sustainable fisheries, restore | PROGRAM 5. Reduce Ocean Hypoxia | Outcome 5.1 Elimination or substantial decrease in frequency and extend of "dead zones" in sizeable part of developing countries' LMEs.<br>*Indicator 5.1.1: #, result and type of investments and reforms for nutrient reduction; demonstration of innovative policy, economic and financial tools and functioning national inter-ministry committees.* |

| Focal Area Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| & protect coastal habitats, reduce pollution of coasts & LMEs | PROGRAM 6. Prevent Loss & Degradation of Coastal Habitats | Outcome 6.1: Coasts in globally most significant areas protected from further loss and degradation of coastal habitats while protecting and enhancing livelihoods<br>*Indicator 6.1.1: Adoption and implementation of ICM plans and reforms to protect coastal zones in LMEs (% of country coastline under ICM, # of countries adopting and applying ICM) as reported in GEF IW tracking tool score card.* |
| | PROGRAM 7. Foster Sustainable Fisheries | Outcome 7.1: Introduction of sustainable fishing practices into xx % of globally over-exploited fisheries<br>*Indicator 7.1.1: # of management plans and appropriate measures implemented for rebuilding or protecting fish stocks including alternative management approaches.*<br>*Indicators 7.1.2: $ of private capital directed to support sustainable fishing in targeted LMEs.*<br>*Indicator 7.1.3: # targeted communities of fishers have adopted an ecosystem approach to fisheries management* |

## LAND DEGRADATION FOCAL AREA STRATEGY

### Background

#### *Status of Land Degradation*

1. Agriculture covers 38% of the planet's land area, a total of 4.9 billion hectares, including 3.4 billion hectares of pastureland and 1.5 billion hectares of cropland (arable land and land under permanent crops). Just over half of this production area is moderately or severely affected by land degradation. Each year 5 to 10 million hectares of land completely lose their production capacity, due largely to the impact of unsustainable land management on soil productivity and health. More than 2 billion people, including some of the world's poorest smallholders and pastoralists, are affected globally. Land degradation, if not brought under control, threatens the livelihoods of rural populations in many regions and contributes to undermining the planet's life support systems.

2. Land degradation is defined as the reduction or loss of the biological or economic productivity and complexity of rainfed or irrigated cropland, or range, pasture, forest, and woodlands. This degradation or loss is the result of land uses or a process or combination of processes, including those arising from human activities and habitation patterns, such as: soil erosion caused by wind/water; deterioration of the physical, chemical, biological, or economic properties of soil; and long-term loss of natural vegetation. The gradual loss of tree and vegetative cover, depletion of soil nutrients and organic matter, and decline in quality and quantity of water resources are pervasive symptoms of land degradation in the developing world.

3. Combating land degradation is critical for ensuring sustainability of agro-ecosystems[106] to support current and future demands in crop and livestock production.[107] Projections of global population growth suggest that the pressure to expand cultivated areas for food and feed production will increase, especially in developing countries. However, there are limited options for major new expansions. Sustaining productivity of existing agricultural and grazing land is therefore essential to meet current and future aspirations for increasing food production without compromising ecosystem goods and services.

#### *Drivers of Land Degradation*

4. Global land use is one of the defining factors of the planet's safe operating space,[108] and changes in land use for crop, livestock, and forest production are an important source of human-induced threats to the planet's life support system.[109] Land degradation due to desertification and deforestation is a major factor in the progressive deterioration of ecosystem services affecting agro-ecosystems and forest landscapes globally. Unsustainable land use practices (especially by poor farmers and herders lacking alternative livelihoods), and inadequate or ineffective land use

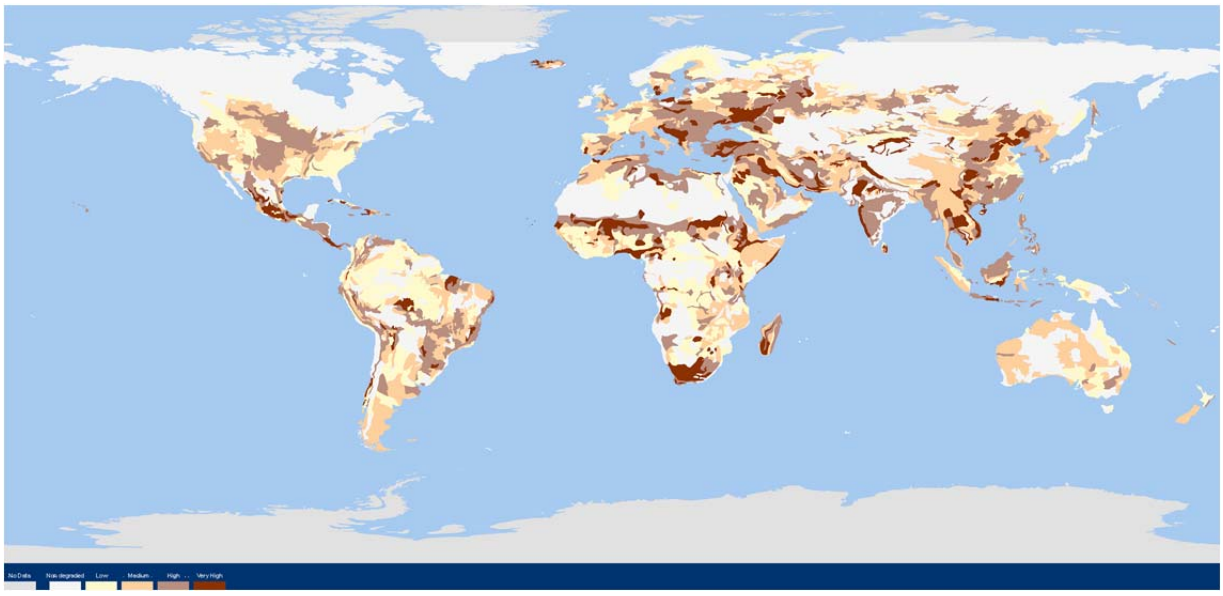
[106] Agro-ecosystems encompass intensive and extensive crop-based, livestock-based, and mixed systems.
[107] World Bank. 2007. World Development Report 2008: Agriculture for Development. World Bank, Washington, DC
[108] Rockström et al. 2009. Planetary boundaries: exploring the safe operating space for humanity. Ecology and Society 14(2): 32. [online] URL: http://www.ecologyandsociety.org/vol14/iss2/art32/
[109] Foley et al. 2005. Global Consequences of Land Use. Science 309:570-574

policies are the major drivers of land degradation. These drivers are strongly influenced by global factors, such as population growth, elevated food prices, expansion of major agricultural commodities, and climate change. Land degradation also has feedback effects on other environmental issues. For example, millions of tons of top soil are lost annually, some of which end up as sediments in water bodies, causing eutrophication and fisheries collapse.

5. Extensive soil degradation due to erosion, salinization, compaction, and nutrient depletion is one of the major drivers of declining crop and livestock productivity in agro-ecosystems (Fig. 1). Soil degradation reduces the capacity of the soil to produce goods and services, such as providing nutrients for crops and livestock, sequestering and storing carbon, safeguarding biodiversity, and supporting water and nutrient cycles.[110] Severely degraded land ultimately becomes unproductive, and the economic cost of restoring such lands is often prohibitive. As a result, new areas are continuously opening up for agriculture and grazing in order to meet overall demands. This has implications for health of the planet, increasing vulnerability of people, particularly among the poor and women, and the environment to impacts of climate change.

**LD Figure 1 - Severity of Soil Degradation Globally**

(Source: UNEP/GRID ARENDAL; Note: Darker colors show severity of soil degradation)



6. Land degradation creates socioeconomic problems in agro-ecosystems dominated by poor smallholder farmers, herders, and pastoralists. In some regions of the world, farmers and herders are forced to degrade and ultimately abandon land and migrate to other areas, sometimes leading to conflict. Land degradation is therefore a major factor in the fight against poverty, hunger, food insecurity, and natural resource conflicts throughout the developing world. The

[110]Lal, R. 1997. Soil quality and sustainability. In: Lal, R., Blum, W.H., Valentin, C., and Stewart, B.A. (eds), Methods for Assessment of Soil Degradation, p 17-30. CRC Press, Boca Raton, FL.

land degradation–poverty nexus is particularly obvious in the world's drylands.[111] Climate change is likely to further aggravate these challenges by reducing agricultural productivity, production stability, and incomes in developing countries and affected regions.

### *Advancing Sustainable Land Management in Production Systems*

7. The Land Degradation Focal Area is the GEF window for supporting efforts by eligible countries to combat land and forest degradation in rural production landscapes. By focusing on SLM,[112] the focal area strategy seeks to address the need for sustaining the flows of ecosystem services that underpin productivity of agricultural and rangeland systems. This focus is consistent with the findings of the Millennium Ecosystem Assessment,[113] which recommended investments in the prevention and control of land degradation in areas with medium to high production potential that are essential for peoples' livelihoods, and in affected areas where the social consequences of continuing land degradation can trigger serious environmental and developmental problems.

8. GEF investment in SLM is based on a diversified portfolio of interventions from farm-level to wider landscapes, with a focus on maintaining or improving the productivity of drylands, rain-fed, and irrigated systems. Interventions such as crop diversification, crop rotation, conservation agriculture, agroforestry, and small-scale irrigation schemes, as well as water harvesting and water-saving techniques, are helping farmers in many developing countries secure fragile production lands from further deterioration. As a result, gains in soil health and quality may enable sustained productivity of farm lands, while increasing ecosystem service flows. Furthermore, arresting soil erosion and siltation in production landscapes also reduces the risk of sedimentation in aquatic systems.

9. In most developing countries, SLM represents a major opportunity for sustainable intensification of existing farmlands through efficient management of nutrients (combining organic and inorganic sources of fertilizers), integrated management of land and water resources ("blue water" and "green water"[114]) and diversification of mixed farming systems. This approach ensures improved management of agro-ecosystem services across production systems and reduces pressure on natural areas, especially those under threat from agricultural expansion. GEF support also helps improve and sustain the economic productivity and environmental sustainability of rangeland and agro-pastoral systems.

10. In order to maximize potential for transformational impact in the context of sustainable development goals, the focal area strategy will focus on maintenance of land resources and ecosystem services to support sustainable intensification of agricultural, rangelands, and forest landscapes. With food security one of the major priorities being considered for the post-2015 agenda, GEF investment in sustainable management of agro-ecosystem services will create opportunities for affected countries to catalyze significant development financing, particularly in

[111] Based on the UNCCD definition, drylands is used here to include all arid, semi-arid, and dry sub-humid regions.
[112] GEF financing for SLM started in earnest during the Third Replenishment Phase (2002-2006).
[113] See 'Ecosystems and Human Well-being: Synthesis', Millennium Ecosystem Assessment, 2005 - http://www.millenniumassessment.org/documents/document.356.aspx.pdf
[114] Green water and blue water are used to describe water use in non-irrigated (rain-fed) and irrigated agriculture, respectively.

the dryland regions. For example, the focus on both SLM and Sustainable Forest Management (SFM) can serve as important entry points for climate-smart agriculture and food security investments. In this context, the potential of production systems to mitigate the effects of climate change and the urgency of adaptation to such change are major grounds for increasing environmental investments to combat land degradation.

***Supporting Implementation of the UNCCD***

11. GEF's mandate to invest in global environmental benefits from production landscapes relates directly to its role as a financial mechanism of the UNCCD. The Land Degradation Focal Area provides the framework for eligible countries to utilize GEF resources for implementing the Convention and its 10-year (2008-2018) strategy,[115] which aims "to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought in affected areas in order to support poverty reduction and environmental sustainability." Approval of the focal area by the GEF Assembly (October 2002) and its operationalization by the GEF Council (May 2003) was in line with acceptance by the Conference of Parties (COP) of GEF as a financial mechanism of the Convention. A Memorandum of Understanding between the UNCCD COP and the GEF Council (decision 6/COP.7) has since paved the way for direct support to those affected countries eligible for GEF financing through enabling activities. The amendment of the GEF instrument in 2010 has formally designated the GEF as a financial mechanism of the UNCCD.[116]

12. The GEF-6 focal area strategy will support affected country Parties in achieving objectives of the 10-year Strategy, which "will involve long-term integrated strategies that focus simultaneously in affected areas, on improved productivity of land and on the rehabilitation, conservation, and sustainable management of land and water resources, leading to improved living conditions, in particular at the community level." The GEF-6 strategy will directly support three of the four UNCCD strategic objectives on achieving long-term benefits for affected populations (SO 1), affected areas (SO 2), and for the global environment (SO 3). Consistent with priorities of the Convention and the GEF Policy on Gender Mainstreaming, the GEF-6 strategy takes into account the need to address impacts of land degradation on the poor and women. Specifically, the strategy will support actions and innovations that generate human livelihood and global environmental benefits. Because the GEF-6 replenishment phase (2014 – 2018) coincides with the final four years of the UNCCD 10-year strategy, the alignment will ensure that countries appropriately channel Land Degradation Focal Area investments to deliver targeted outcomes and catalyze support for combating land degradation.

***Gender***

13. Both women and men, their experiences, strategic needs, priorities and strategies, need to be involved as key actors in the assessment, design, monitoring and evaluation of interventions and findings consolidated with local communities. Lessons have shown that both women and men benefit from a gender approach that reinforces their joint participation in restoring the productivity of degraded land, and ensures that women are involved in planning and carrying out

[115] Document available at http://www.unccd.int/cop/officialdocs/cop8/pdf/16add1eng.pdf#page=8
[116] The Fourth GEF Assembly held in May 2010 in Punta del Este, Uruguay, formally amended the GEF Instrument.

dryland development activities. Therefore, GEF projects funded under this strategy will not only acknowledge gender differences within their design but determine what actions are required to promote both women and men's roles in SLM management.

## Goal and Objectives

*Strategic Considerations*

14. The Land Degradation Focal Area embraces the landscape approach[117] to promoting integrated natural resources management.[118] The focal area drives an agenda for multiple global environmental benefits, including those related to the protection and sustainable use of biodiversity, climate change mitigation and adaptation, and the protection and sustainable use of international waters. In this regard, the Land Degradation Focal Area will actively pursue joint programming with other GEF focal areas, especially in the context of integrated watershed management in priority transboundary catchments and groundwater recharge areas (links with International Waters Focal Area); increasing forest and tree cover in production landscapes (links with the Climate Change Mitigation Focal Area and the Sustainable Forest Management Program); and implementation of landscape approaches for protected area management (links with the Biodiversity Focal Area). These efforts will also take into account opportunities to develop country-level or regional programmatic approaches for natural resource management where they are likely to trigger transformational changes in the agriculture and forest sectors.

15. GEF recognizes that successful SLM investment requires appropriate enabling environments, such as effective policies, legal and regulatory frameworks, capable institutions, and mechanisms for monitoring and knowledge sharing. Project support will be aligned with existing or planned investments in such enabling conditions to combat land degradation, including policy frameworks, investment strategies, and regulatory mechanisms. However, focal area resources will be directly channelled toward investment in on-the-ground implementation of SLM practices to generate multiple benefits at scale. In this context, GEF investments will take into account the different roles of men and women in advancing SLM at multiple scales and in ensuring that investments mainstream gender.

16. Investing in SLM to control and prevent land degradation in production landscape is an essential and cost-effective way to deliver multiple global environmental benefits. SLM innovations that address productivity needs in crop, livestock, and forest landscapes also contribute to: biodiversity conservation by reducing the conversion of natural ecosystems and safeguarding agro-biodiversity; reduction of pollution risks and degradation of water resources to ensure sustainable flow for consumptive uses; reducing deforestation and emission of greenhouse gasses in production systems; and increasing sustainability and resilience of agro-

[117] Defined according to the World Bank, as taking both a geographical and socio-economic approach to managing the land, water and forest resources that form the foundation – the natural capital – for meeting our goals of food security and inclusive green growth (http://go.worldbank.org/CS4D0TLTA0)

[118] As defined by J.A. Sayer J.A and B. Campbell: "Integrated Natural Resource Management is a conscious process of incorporating the multiple aspects of resource use into a system of sustainable management to meet the goals of resource users, managers and other stakeholders (e.g. production, food security, profitability, risk aversion and sustainability goals)." The Science of Sustainable Development: Local Livelihoods and the Global Environment. Cambridge University Press, 2004.

ecosystem services. These multiple benefits are at the heart of GEF's mandate, and offer an opportunity to foster cross-focal area investments for harnessing synergies and managing tradeoffs.

*Goal and Objectives*

17. The goal of the land degradation focal area is to arrest and reverse current global trends in land degradation, specifically desertification and deforestation, by promoting good practices conducive to SLM.[119] Such practices generate global environmental benefits while creating local and national socio-economic benefits. At a landscape level this includes SFM practices that generate sustainable flows of forest ecosystem services, sustaining livelihoods of forest dependant people. It also encompasses integrated natural resource management that addresses pressures on natural resources from competing land uses, including the prevention of further land and forest degradation.

18. The primary approach for GEF-6 will be to address priorities that represent the best opportunity for supporting agriculture, livestock management, and forest landscape restoration to underpin rural livelihoods. This will directly address the need to: a) reinforce SLM for enhancing resilience in agro-ecosystems; b) harness and maintain ecosystem services for agro-ecological intensification; c) promote integrated management of production landscapes; and d) mainstream SLM in sustainable development. As a result, the LD FA will contribute to sustainable management of land, soil, water, and vegetative cover to generate multiple global environment benefits. The focal area approach will also create opportunities for scaling-up successful interventions to benefit millions of land users.

19. Building on the focal area mandate and the opportunities for transformational impact, an aggregate area of 120 million hectares will be targeted for SLM coverage globally. This estimate includes potential coverage across crop, rangeland and forest landscapes in affected regions. In order to meet this target, the GEF-6 investments will be guided by the following four objectives to deliver agreed global environment benefits and expected national socio-economic benefits (see indicators and measures in the Results Framework).

***LD-1: Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods***

*Rationale*

20. This objective primarily focuses on agricultural and rangeland systems affected by land degradation. The efficient use of land, soil, water, and vegetation in existing agro-ecosystems is essential for intensifying production of food crops and livestock. There are myriad SLM options for agro-ecological intensification, from diversification of farming systems to improvement of soil health, and conservation of water resources. These options are at the heart of evergreen

[119] As defined in: World Bank. 2006. Sustainable Land Management: Challenges, Opportunities and Tradeoffs. International Bank for Reconstruction and Development/The World Bank, Washington, DC. Sustainable land management (SLM) is a knowledge-based procedure that helps integrate land, water, biodiversity, and environmental management (including input and output externalities) to meet rising food and fiber demands while sustaining ecosystem services and livelihoods.

agriculture and farmer-managed natural regeneration, both of which promote the use and integration of trees in production landscapes.[120] These options are critical in sub-Saharan Africa where land degradation is inextricably linked to food insecurity and vulnerability to climate change. LD-1 thus is linked to the proposed Integrated Approach on Fostering Sustainability and Resilience of Production Systems in Africa, and could potentially incentivize many more countries on the continent and in other regions to program the LD FA resources for transformational impact.

21. Focal area investment under this objective will promote options that contribute to reduced soil erosion rates, reduced GHG emissions from crop and livestock activities, increased accumulation of soil organic matter and sequestration of carbon, and maintenance of all types of habitats for biodiversity in the agricultural landscape. As a result, the following four outcomes are included: improved management of agricultural, rangeland, and pastoral systems, including soil health and fertility through maintenance of soil organic matter; increased availability of technologies and practices for crop, tree, and livestock production that increase ecosystem services; functionality and vegetative cover of agro-ecosystems are improved and maintained; and increased investments in sustainable land management.

22. Consistent with the need to enhance food security as a development priority in most countries, GEF will focus on areas where agricultural and rangeland management practices underpin the livelihoods of poor rural farmers and pastoralists, and take into account the need to conserve biodiversity outside protected areas and to mitigate and adapt to climate change. Hence, this objective targets two key priorities, which also reinforce the LD FA as anchor for the proposed Integrated Approach: agro-ecological intensification, and SLM for climate-smart agriculture. With additional resources under a higher replenishment scenario, a specific outcome on regional or transboundary integration across major agro-ecosystems will be targeted to increase coverage of these priorities through policy and institutional transformations.

*Program 1: Agro-ecological Intensification*

23. This programmatic priority will target multiple environment benefits from agro-ecosystems and rangelands through improved land and soil health and increased vegetative cover. The proposed interventions contained in the Food Security Integrated Approach are closely aligned with this objective. As a means to ensure long-term sustainability, GEF will seek to leverage commitments by other development partners to increase investments in policy options for achieving food security. The program will therefore build on planned or existing initiatives addressing improvements in genetic resources and use of inputs, institutional frameworks to strengthen capacity of smallholder farmers, and efficient marketing and extension programs. This program recognizes the critical importance of gender roles in all the focus areas identified below for GEF support and will work with development partners to ensure that it fully mainstreams gender.

[120] Garrity, D et al. (2010). Evergreen Agriculture: a robust approach to sustainable food security in Africa. Food Security 2(3):197-214

24. GEF support will focus on:

(a) Agro-ecological methods and approaches including conservation agriculture, agroforestry, etc.;

(b) Improving rangeland management and sustainable pastoralism, regulating livestock grazing pressure through sustainable intensification and rotational grazing systems, increasing diversity of animal and grass species, and managing fire disturbance;

(c) Strengthening community-based agricultural management, including participatory decision-making by smallholder farmers and diversification of farms and practices at scale;

(d) Integrated watershed management, including wetlands where SLM interventions can improve hydrological functions and services for agro-ecosystem productivity;

(e) Implementing integrated approaches to soil fertility and water management.

*Program 2: SLM for Climate-Smart Agriculture*

25. An emerging opportunity for increasing the role of SLM in agro-ecosystem resilience is through Climate-Smart Agriculture.[121] Innovative SLM approaches can help achieve the triple-win in targeted agro-ecosystems, especially rain-fed and irrigation systems where climate change exacerbates the risk of land degradation. Furthermore, projects addressing Climate-Smart Agriculture provide an excellent opportunity to attract private sector investments in SLM. Activities under this programmatic priority would mainly support LD-1 (agro-ecosystems and rangelands) with linkages to LD-3 (mixed land uses), and enable eligible countries to leverage additional financing from other focal areas. This is also directly relevant for the proposed Food Security Integrated Approach and links to the Climate Change Mitigation focal area. Taking into account gender-specific needs, the program will prioritize concrete actions that diversify income and improve livelihoods of farmers and pastoralists, through:

(a) Agricultural land management systems that are resilient to climate shocks (drought, flood).

(b) Improving management of impacts of climate change on agricultural lands (including water availability) to enhance agro-ecosystem resilience and manage risks.

(c) Diversification of crops and livestock production systems through SLM to enhance agro-ecosystem resilience and manage risks; e.g. Integration of tree-based practices into smallholder crop-livestock systems to increase resilience.

(d) Mitigating impacts of climate change on agricultural lands using SLM (e.g. water management practices) to enhance agro-ecosystem resilience and manage risks.

[121] FAO 2010. "Climate-Smart" Agriculture: Policies, Practices and Financing for Food Security, Adaptation and Mitigation. Food and Agriculture Organization of the United Nations, Rome, defines it as defined as "…agriculture that sustainably increases productivity, resilience (adaptation), reduces/removes greenhouse gases (mitigation), and enhances achievement of national food security and development goals."

(e) Applying SLM strategies and other ecosystem-based climate adaptation strategies for drought mitigation in drylands.

(f) Applying innovative financial and market instruments (e.g. carbon finance with public and private sector partners) to implement SLM practices that reduce GHG emissions and increase sequestration of carbon on smallholder farms.

(g) Rangeland management and sustainable pastoralism, focusing on SLM options for climate change adaptation and grazing management to reduce GHG emissions.

***LD-2: Generate sustainable flows of ecosystem services from forests, including in drylands***

*Rationale*

26. Forests in agricultural landscapes play an important role in maintaining ecosystem services that are the foundation of sustainable crop and livestock production. Millions of farmers and herders, particularly in drylands, harness forest resources as vital components of their livelihood. This objective focuses on integration and management of forests in agricultural landscapes by promoting access to innovative financing mechanisms, technology, and best practices combined with on-the-ground application. Resources programmed for LD-2 will complement the SFM/REDD+ incentive mechanism by emphasizing agro-ecological practices that secure forest patches in agricultural landscapes. Three major outcomes are considered under this objective: support mechanisms for forest landscape management and restoration (institutional, legal and regulatory frameworks), improved management of forest landscapes through innovative practices, and increased investment in SFM and/or forest landscape restoration.

27. Forests in agricultural landscapes provide multiple ecosystem goods (fodder, fuelwood, fruits, vegetables, resins, gums, and medicinal plants) and services (hydrological flows, reduction of erosion). Although this is relevant for all types of forest ecosystems where these goods and services support human livelihoods, the emphasis on drylands is essential for leveraging GEF resources in the context of sustainable forest management. Furthermore, in the drylands where communities have evolved adaptive capacities to manage and harness these services, drought and climate variability exacerbate the threat of land degradation due to desertification and deforestation. This objective proposes a specific program priority on forest landscape management and restoration to reinforce the important role of forests for tackling these threats in agricultural landscapes.

*Program 3: Landscape Management and Restoration*

28. This programmatic priority will address forests and “trees outside forests” in relation to production landscapes, reinforcing synergy with the SFM/REDD+ incentive mechanism. It is also linked with LD-3 (reducing pressures in broader landscapes). GEF support will focus specifically on land management options that increase and maintain agricultural productivity and deliver multiple environment benefits at landscape scale, particularly in the context of addressing food security and livelihood needs of affected communities with an emphasis on the different gender roles between women and men and the important role of women, e.g.:

(a) Sustainable management of forests and agroforestry for increased ecosystem services (e.g. food resources, reduced land and soil degradation, diversification) in agriculture;

(b) Landscape regeneration through use of locally adaptive species, including agro-forestry and farmer-managed natural regeneration;

(c) SLM approaches to avoid deforestation and forest degradation in production landscapes; including practices for sustainable supply of wood and biomass energy;

(d) Good practices in community and small-holder land management, including local knowledge;

***LD-3: Reduce pressures on natural resources by managing competing land uses in broader landscapes***

*Rationale*

29. This objective will address the pressures on natural resources from competing land uses across broad landscapes (e.g. extending the agricultural frontier into forest lands, extractive industry destroying forests, urbanization of rural areas). The objective reinforces LD-1 and LD-2 by emphasizing cross-sector harmonization and multi-scale integration of SLM, and creates opportunity for engaging multiple stakeholders, including the private sector, in SLM. This is particularly crucial in regions where large numbers of smallholder land users engaged in production of major agricultural commodities drive deforestation. The following outcomes are included under the objective: support mechanisms in place for SLM interventions in wider landscapes, integrated landscape management approaches adopted by local land users, and increased investment in integrated landscape management.

30. An important priority for this objective is contributing to further advancement of landscape approaches for scaling-up of SLM, which will also facilitate cross-focal area investments with the Biodiversity and Climate Change Mitigation focal areas, with the potential to also leverage the SFM/REDD-plus incentive mechanism. GEF support will focus on reinforcing efforts by eligible countries to create an enabling environment for cross-sector engagement and to apply good management practices based on integrated land use planning at a broad scale. With additional resources under a higher replenishment scenario, collaboration between countries at a regional or transboundary level will be fostered for effective delivery of good practices. Such regional and transboundary collaboration will be essential for addressing drivers of land degradation that affect large areas beyond national jurisdictions. An important target in this regard will be the sand and dust storms in Asia, the Middle East, and North Africa, where governments have the willingness and interest to seek collaborative solutions.

*Program 4: Scaling-up sustainable land management through the Landscape Approach*

31. GEF will support efforts to scale-up policies, practices, and incentives for improving production landscapes with environmental benefits through this programmatic priority, and will encourage wider application of innovative tools and practices for natural resource management at scale. This includes innovations for improving soil health, water resource management, and

vegetation cover in production landscapes systems to benefit land users most vulnerable to land degradation. Women are often the most vulnerable to such degradation, and also can offer local innovations for sustainability. Therefore the specific roles of men and women in these systems will be considered. Potential support activities include:

(a) Institutional capacity development and institutional finance for sustainable land management;

(b) Securing innovative market and financing mechanisms that provide incentives for reducing the pressures and competition between land use systems;

(c) Integrated watershed management, including wetlands, transboundary areas and mountainous regions where SLM interventions can improve hydrological functions and services for agro-ecosystem productivity;

(d) Multi-stakeholder landscape planning involving both public and private sectors to inform decision-making on integrated management of ecosystem services;

(e) Improving agricultural land management near protected areas, including through empowerment of local communities.

***LD-4: Maximize transformational impact through mainstreaming of SLM for agro-ecosystem services***

*Rationale*

32. Influencing awareness, standards, institutions, governance, and policy frameworks that promote SLM in all productive land uses will greatly enhance the potential to achieve transformational change for sustainability of production systems. This objective focuses specifically on addressing the need for cross-sector engagement in SLM through mainstreaming at multiple scales. Mainstreaming of SLM enables countries to effectively scale-up best practices to safeguard agro-ecosystem services and minimize the risk of negative externalities from other development sectors. SLM mainstreaming is also relevant in the context of poverty reduction and rural development investments, and including gender considerations as part of the process is particularly critical. The following two outcomes will be achieved under this objective: SLM mainstreamed in development investments involving government sector agencies and across multiple scales; and innovative mechanisms for multi-stakeholder planning and investments (from government and private sector) promoted through decision-support tools and economic valuation.

33. GEF already has considerable experience investing in the mainstreaming of SLM, particularly in the context of creating enabling environment to meet the needs of affected populations. This experience shows that favourable policies, institutional frameworks, and investment opportunities can help affected populations to harness emerging opportunities (e.g. PES and other market-based mechanisms) for income generation and food security through SLM. To further reinforce this need, a specific program priority under this objective will focus on mainstreaming SLM in development to help governments improve policies, and meet the institutional and investment needs for SLM, including private sector institutions.

*Program 5: Mainstreaming SLM in Development*

34. This programmatic priority will target all relevant development sectors that depend on productive land uses and involve rural communities. GEF support will specifically target innovative mechanisms for multi-stakeholder planning and investment in SLM at scale, including engagement of the private sector. This will be crucial for integrating ecosystem services into mainstream development investments and value-chains to support agriculture and food security across multiple scales, from local to national and regional. Empowering women in these investments and value chains has been proven to be an effective means for maximizing returns in agriculture and food security initiatives. In addition to supporting LD-1, the program will also contribute to LD-2 and LD-3 in an integrated manner by influencing standards, institutions, and governance and policy frameworks relative to all productive land uses. Potential activities for support include:

(a) Incorporating SLM in new public-private partnership agricultural investments developed by countries in the context of smallholder agriculture;

(b) Securing innovative financing mechanism based on valuation of environmental services (e.g. PES and other market-based mechanisms) to create sustainable finance flow for sustainable agriculture;

(c) Improving valuation of natural resource assets and ecosystem services from production landscapes to inform decision-making on investments;

(d) Developing mechanisms to scale-up best practices for landscape regeneration, e.g. through engagement of all relevant stakeholders, including CSO and private sector.

***Land Degradation Focal Area Set-Aside***

35. A total of US$85 million of the focal area resources will be allocated for programming as set-aside funds. In addition to being used as incentives for the Integrated Approach and contribution to the SFM/REDD-plus incentive mechanism, the set-aside funds will also support UNCCD enabling activities, cross-cutting initiatives for regional integration, and efforts to promote knowledge sharing and transfer for advancing SLM globally (in other words, for regional and global projects). Table 2 shows the, indicative breakdown of the set-aside funds for GEF-6.

(a) Financing for Enabling Activities will support implementation of the UNCCD and 10-Year Strategy in accordance with country obligations to the convention, and based on decisions from the COP. The financing will also take into account the need to align focal area portfolio monitoring needs with planned activities by STAP and the UNCCD Secretariat on indicator-based reporting in response to COP decisions.

(b) Regional, Global and Cross-cutting investments will enable eligible countries to link nationally-developed projects on the basis of the following: thematic issues that will deepen and reinforce the focal area agenda, such as capacity building and gender mainstreaming for SLM implementation; and potential for spatial and geographical integration at appropriate scales (including transboundary areas).

The following regional prospects will be particularly considered in this regard: (i) further advancement of the dryland agenda under the Central Asian Countries Initiative on Land Management (CACILM); (ii) regional approach to sustainable land management in Caribbean and Pacific small island development states (SIDS); (iii) advancement of the integrated desert ecosystems and livelihoods approach in Southern Africa, and (iv) integrated ecosystem management approaches in the dry, high elevation South American Andean ecosystems (Central Andes).

(c) These investments will also catalyze efforts by countries to engage in knowledge sharing and transfer on the basis of south-south exchange and practitioner forums at regional and global level. Such investments will foster learning and knowledge transfer to broaden GEF's catalytic role beyond national boundaries. They will also significantly leverage GEF's catalytic role through the focal area, and at the same time contribute to a stronger visibility for the UNCCD by facilitating engagement of broader stakeholder community involved in implementation of GEF projects.

**LD Table 1 - Indicative Allocations of Focal Area Set-Aside for GEF-6**

| Category | GEF-6 Proposed Total Set-Aside ($ million) |
|---|---|
| Integrated Approach on Food Security | 40 |
| SFM/REDD-Plus Incentive | 20 |
| UNCCD Enabling Activities | 15 |
| Regional and Global Projects | 10 |
| **Total Set-Aside** | **85** |

## Land Degradation Resource Envelope

36. Based on status-quo allocation ($415 million) and 15% increase scenario ($475 million), the proposed indicative breakdown of focal area resources for programming in GEF-6 is presented in Table 1. The focal area resources will be programmed across focal area and set-aside objectives, the latter including convention obligations, regional and global projects, the Integrated Approach pilot on Fostering Sustainability and Resilience of Production Systems in Africa, and the contribution to the SFM/REDD-plus incentive mechanism.

## LD Table 2 - Focal Area Objectives and Indicative Allocations per Program

| Focal Area Objective | Focal Area Programs | Indicative Allocation Status-quo Scenario ($ million) | Indicative Allocation Status-quo Plus Scenario ($ million) |
|---|---|---|---|
| LD1 – Agro-ecosystems | Program 1: Agro-ecological intensification<br><br>Program 2: SLM for Climate-smart Agriculture | 100 | 125 |
| LD2 – Forest Landscapes | Program 3: Land Management and Restoration | 70 | 70 |
| LD3 – Integrated Landscapes | Program 4: Scaling-up Sustainable Land Management through Landscape Approach | 90 | 120 |
| LD4 – SLM Mainstreaming | Program 5: Mainstreaming SLM in Development | 70 | 75 |
| Focal Area Set-Aside | | 85 | 85 |
| **Total Land Degradation** | | **415** | **475** |

**Results Framework**

**Goal:** To contribute to arresting and reversing current global trends in land degradation, specifically desertification and deforestation.

**Impact**: Sustained productivity of agro-ecosystems and forest landscapes in support of human livelihoods.

**Corporate Level Target:** 120 million hectares under Sustainable Land Management

**Indicators:**

(a) Change in land productivity (greenness measure as proxy - NPP, NDVI – corrected by RUE)

(b) Improved livelihoods in rural areas (Farmer income – disaggregated by gender)

(c) Value of investment in SLM ($ generated from diverse sources, co-financing in projects)

**Gender Indicators:**

Focal Area projects will use and incorporate GEF Gender Indicators, which will be monitored and aggregated at the Focal Area portfolio and Corporate levels.[122]

[122] Refer to the core GEF Gender Indicators identified under the gender section of the Strategic Positioning Paper for GEF-6 replenishment. The five Gender Indicators are:
1. Percentage of projects that have conducted gender analysis during project preparation.
2. Percentage of projects that have incorporated gender sensitive project results framework, including gender sensitive actions, indicators, targets, and/or budget.
3. Share of women and men as direct beneficiaries of project.
4. Number of national/regional/global policies, legislations, plan, and strategies that incorporates gender dimensions (e.g. NBSAP, NAPA, NAP, TDA/SAP, etc).
5. Percentage of Project Implementation Reports (PIR), Mid-term Evaluation (MTE) and Terminal Evaluation Reports (TER) that incorporate gender equality and women's empowerment and assess results/progress.
Projects will use gender-sensitive indicators and sex-disaggregated data, and it will be systematically recorded, reported and integrated into adaptive management responses at the project level. GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in projects, including through Annual Monitoring Review and Learning Missions.

| Objectives | Program Priorities | Expected Outcomes and Indicators |
|---|---|---|
| **LD-1: Agriculture and Rangeland Systems:** Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods | **Program 1:** Agro-ecological Intensification<br><br>**Program 2:** SLM for Climate Smart Agriculture | Outcome 1.1: Improved agricultural, rangeland and pastoral management<br><br>Indicator 1.1 Land area under effective agricultural, rangeland and pastoral management practices and/or supporting climate-smart agriculture<br><br>Outcome 1.2: Functionality and cover of agro-ecosystems maintained<br><br>Indicator 1.2 Land area under effective management in production systems with improved vegetative cover<br><br>Outcome 1.3: Increased investments in SLM<br>Indicator 1.3: Value of resources flowing to SLM from diverse sources (including climate change adaptation and mitigation) |
| **LD-2: Forest Landscapes:** Generate sustainable flows of forest ecosystem services, including sustaining livelihoods of forest dependent people | **Program 3:** Landscape Management and Restoration | Outcome 2.1: Support mechanisms for forest landscape management and restoration established<br><br>Indicator 2.1: Types of innovative mechanisms, institutions, legal and regulatory frameworks functioning to support SFM and restoration<br><br>Outcome 2.2: Improved forest management and/or restoration<br>Indicator 2.2 Land area under sustainable forest management and/or restoration practices<br><br>Outcome 2.3: Increased investments in SFM and restoration<br>Indicator 2.3: Value of resources flowing to SFM from diverse sources (e.g. PES, small credit schemes, voluntary carbon market) |

| Objectives | Program Priorities | Expected Outcomes and Indicators |
|---|---|---|
| **LD-3: Integrated Landscapes:** Reduce pressures on natural resources from competing land uses in the wider landscape | **Program 4:** Scaling-up sustainable land management through the Landscape Approach | Outcome 3.1: Support mechanisms for SLM in wider landscapes established<br>Indicator 3.1: Demonstration results strengthening cross-sector integration of SLM<br><br>Outcome 3.2: Integrated landscape management practices adopted by local communities based on gender sensitive needs .<br>Indicator 3.2: Application of integrated natural resource management (INRM) practices in wider landscapes<br><br>Outcome 3.3: Increased investments in integrated landscape management<br>Indicator 3.3: Increased resources flowing to INRM and other land uses from divers sources |
| **LD-4: Maximizing transformational impact:** Maintain land resources and agroecosystem services through mainstreaming at scale | **Program 5:** SLM Mainstreaming in Development | Outcome 4.1: SLM mainstreamed in development investments and value chains across multiple scales<br>Indicator 4.2: Increased investments in SLM<br><br>Outcome 4.2: Innovative mechanisms for multi-stakeholder planning and investments in SLM at scale<br>Indicator 4.2: Innovative mechanisms, institutions, legal and regulatory frameworks functioning to support SLM\ |

## SUSTAINABLE FOREST MANAGEMENT STRATEGY

### Background

#### *Status of Global Forests and Forest Ecosystem Services*

1. Forests fulfill a diverse range of functions. Forests include some of the worlds' most biodiverse habitats and harbor up to three-quarters of all terrestrial biodiversity, the majority in tropical forests.[123] Biodiversity underpins forest productivity, resilience, and adaptive capacity; maintains ecological processes such as pollination, seed dispersal, and decomposition; and supports important ecosystem services such as carbon sequestration, water regulation, and soil protection. Forests account for 12-17% of global greenhouse gas emissions, largely as agricultural expansion leads to deforestation. Forests regulate water flow dynamics at local and regional scales and hence are vital to freshwater availability. Many of the most populous cities around the world depend on forested water catchments for their domestic and commercial water supplies.[124]

2. Well-managed forests contribute to sustainable development and provide livelihood opportunities for local communities and indigenous peoples. Forests are critically important to the food insecure because they are one of the most accessible productive resources available to them. The importance of forests for people and the world's environment is therefore hard to over-estimate.

3. Despite 20 years of activity since the World Summit on Environment and Development in Rio de Janeiro, deforestation and forest degradation continue at alarming rates in many countries. Approximately 45% of the Earth's original forest cover has already disappeared, cleared mostly during the past century. The world's total forest area is just over 4 billion hectares, or 31% of total land area. The rate of forest loss has decreased over recent years in some countries as a result of improved economic and development polices and an increase in the area of new forest established and natural expansion of existing forests. Over the last decade, each year 13 million hectares of forest were converted to other uses with attendant loss in biodiversity, livelihoods, and ecosystem services.[125]

#### *Drivers of Deforestation and Forest Degradation*

4. The drivers of forest loss and degradation are deeply rooted in institutional and market problems that cannot be solved by taking a purely a forest perspective. Deforestation and forest degradation result from complex interactions of social, economic, political, cultural, and technological processes often remote from the forest. While illegal activities are prevalent in some countries, in many a deliberate policy decision determines the manner in which forest resources are used. While market forces drive private sector investments and actions, the enabling environment has not integrated sustainable forest management (SFM) into the

[123] CPF (2008) Strategic framework for forests and climate change. A proposal by the Collaborative Partnership on Forests for a coordinated forest-sector response to climate change.
[124] Dudley, N. and S. Stolton, eds. (2003) Running pure: the importance of forest protected areas to drinking water. WWF/World Bank Alliance for Forest Conservation and Sustainable Use.
[125] FAO (2010) Global Forest Resources Assessment 2010.

governance structures that shape markets. Decisions in both the public and private sectors as well as at the national and local level that impact forests are often based on incomplete information regarding alternative forest management options. The lack of a long-term and integrated vision for a country's forests, including an understanding of the impacts of these decisions on socio-economic and ecological stability, often exacerbates the problem. There is potential to harness the supportive actions of the private sector through responsible business practices to catalyze sectoral change.

5. The expansion of agriculture is the main driver of forest loss worldwide.[126] The actors involved range from small-scale farmers to large companies. Other drivers of deforestation include expansion of infrastructure, mining, and illegal logging. Forest degradation often has different driving forces, including unsustainable and illegal logging, over-harvest of fuelwood and non-timber forest products (NTFPs), overgrazing, human-induced fires, and poor management of shifting cultivation. While degradation is commonly a longer-term process than deforestation, it is still a major issue for forests, with an estimated two billion hectares of deforested and degraded land worldwide.[127]

6. Population and economic growth create increased demand for agricultural land and increased demand for forest products.[128] Poor forest governance, unsustainable natural resource planning, high levels of corruption, low capacity of public forest agencies, and land tenure uncertainties often exacerbate the pressures so that further loss and degrade of forest is inevitable without fundamental changes to both the direct and indirect causes.

### *Challenges and Potential for Transformational Impact*

7. Governments face a range of economic, ecological, and political choices in achieving SFM.[129] Three major challenges face many countries with forest resources: how to avoid further loss of high conservation value forests through deforestation; how to improve management of forest resources and avoid practices which continue to degrade forests; and how to restore forest landscapes already degraded to an extent that ecosystem services have been lost or severely degraded. Only by addressing these simultaneously can governments achieve the sustainable flow of forest goods and ecosystem services.

8. Many governments now recognize the true costs and consequences of the loss and degradation of forests and there is growing appreciation of the links between national and local development and the sustainable management of forest resources.[130] Through the use of a wide range of approaches, including natural capital accounting, governments have a clearer understanding of the contribution of the multiple goods and services their forests can provide.[131]

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[126] Kissinger, G., M. Herold, V. De Sy (2013) Drivers of Deforestation and Forest degradation. A Synthesis Report for REDD+ Policy Makers.
[127] Global Partnership on Forest Landscape Restoration (2013) Assessing national potential for landscape restoration: A Briefing Note for Decision-Makers.
[128] IUCN (2011) The Root of the Problem. What's Driving Tropical Deforestation Today?
[129] Norgaard, R (2010) Ecosystem services: from eye-opening metaphor to complexity blinder. Ecological Economics 69: 1219-1227.
[130] UNEP (2011) Forests in a Green Economy. A Synthesis.
[131] TEEB For Business Coalition (2013) Natural Capital at Risk: The Top 100 Externalities of Business.

Indigenous people and local communities have a growing appreciation of the social, political, and economic costs of forest loss or degradation.

9. Forests, like other ecosystems, are affected by climate change. In some places, impacts may be negative, while in others they may be positive. Studies show that the greater frequency of extreme climatic events resulting from global warming affects forests significantly. Climate change also modifies local climatic regimes and can impact species and ecosystems. There is a positive relationship between diversity and ecosystem resilience. Approaches that support genetic, species, and landscape heterogeneity thus can help support healthy forest ecosystems.[132] Forests also play an important role in efforts to slow climate change by maintaining and enhancing forest carbon through REDD+ initiatives.

10. The private sector's role in forest management is also crucial for sustainable development. While governments provide the enabling conditions through public policy and governance structures, on the ground activities are almost exclusively carried out by private sector entities from large enterprises to small holders and communities. Hence, private sector support in avoiding further deforestation and the development of SFM approaches is vital. Introducing best practices for private sector operations and catalyzing private sector investment in practices that protect and maintain forest resources is the only way to achieve our vision for sustainable forests. A number of transitions are underway in the forest sector, including the growing roles of local communities and indigenous groups, forest governance modernization, appreciation of the role of the private sector, advance of REDD+, novel forest financing mechanisms, and nascent markets for ecosystem services that present new opportunities for forests. An integrated approach to SFM, poverty alleviation and sustainable development offers potential for the convergence of social, conservation, and economic agendas.

***Gender***

11. One key potential for transformational impact that will be developed and expanded in GEF-6 is that of mainstreaming gender into the sector. There is growing recognition of the importance of the role of women in the implementation of SFM. This has been acknowledged by the three Rio conventions in their efforts to mainstream gender in pursuit of their objectives. In addition, the UNFF identifies the continuing barriers faced by women in relation to SFM and the need for structural changes within forest organizations to reflect gender perspectives.

12. The SFM strategy recognizes that women's inclusion is necessary for achieving sustainable forest management. The strategy encourages countries to enhance gender equality and the empowerment of women and raise the levels of participation of women in forest management decision-making and forest governance. The strategy seeks to ensure that the projects in which it invests include provision to address the barriers faced by women in relation to forests by developing key enabling conditions that can facilitate women to participate and benefit from policies, institutions and practices − both formal and informal at all levels of SFM. Women and men's dependence on forests is different; they obtain different products and receive different benefits from forests; they use forest resources for different purposes; they have

[132] Secretariat of the Convention on Biological Diversity (2009) Forest Resilience, Biodiversity, and Climate Change. A Synthesis of the Biodiversity/Resilience/Stability Relationship in Forest Ecosystems.

different knowledge, access and control of forests. Forestry projects involve men and women in a different way; and women tend to be excluded. Women and men contribute in differing ways to forest conservation and management.

13. To integrate gender, the SFM Strategy can build upon key lessons obtained through considerable body of experience, knowledge and best practices. [133] Transparent, equitable and accountable benefit sharing systems can tailor to wider benefits to women. Benefit sharing systems that allow equitable access to women, and earmark some of its funds to meet women's persisting demands, has helped to enhance livelihoods of poor female-headed households, promote girl's education through scholarships and provide for better maternal health services. Micro-credit and alternative livelihood options can help women increase income, and realize other benefits such as enhanced confidence, leadership and decision-making. Technology to reduce women's workload can save women from being overburdened, since women work longer hours than men, intervention strategies that demand women's time for participation should not overburden women. Use of energy-efficient stoves has significantly reduced women's workload, reduced health risks and also abates risks to deforestation and forest degradation.

14. It is important to strengthen women's organizations to enable them to negotiate the terms of their engagement within environmental programs. When women's groups form networks, they are able to increase their power to negotiate prices, arrange transport to markets, set up and run community cooperatives to increase productivity and earnings, and influence decisions at all levels of governance. Given that the knowledge base on gender and SFM is still evolving, it will be necessary to undertake periodic review of the portfolio and highlight best practice.

***Investing in Forests for Multiple Benefits***

15. GEF has been an important advocate of SFM across the world for over 20 years. The GEF-5 SFM/REDD+ Incentive strengthened GEF's assistance through investments helping countries manage their forest resources sustainably and continue to provide a range of ecosystem services and diverse livelihood opportunities. GEF's approach is fully aligned with current global efforts that address forests in a holistic manner and recognize the links between poverty alleviation and the sustainable management of forest resources.[134] The objectives of the Biodiversity, Climate Change Mitigation, and Land Degradation Focal Areas can be achieved only if the needs of local communities, women and forest dependent people are met in the implementation of SFM.

16. Through its support for SFM, GEF aims to champion the protection and sustainable use of the world's forests. GEF will also respond to the different national circumstances of recipient countries and catalyze 'step-change' innovation and investments in the world's forests. GEF will help countries manage their forest resources sustainably, so they will continue to provide a wide range of ecosystem services, support diverse livelihood opportunities, and strengthen climate change resilience. GEF will also encourage private sector engagement through innovative mechanisms to encourage investment in SFM, such as payment for ecosystem services and REDD+. This drive for multiple benefits is reinforced by GEF's unique position to support

[133] The Business Case for Gender Mainstreaming in REDD+. UN-REDD Programme 2011.
[134] Lele U., A. Karsenty, C. Benson, J. Fetivean, M. Agrawal, S. Goswami (2013) Changing Roles of Forests and their Cross Sectorial Linkages in the Course of Economic Development. Prepared for UNFF10.

countries in implementation of the three Rio Conventions (UN Convention on Biological Diversity, UN Framework Convention on Climate Change and UN Convention to Combat Desertification). The GEF is also actively cooperating with the United Nations Forum on Forests (UNFF) on a range of topics on the maintenance of the multiple benefits and services provided by forests. GEF will continue to help countries implement the three forest-related conventions and their respective country action plans in a more synergistic fashion.

**SFM Table 1 - Links between the Forest-Related Decisions of the Rio Conventions and the UNFF[135]**

| Aichi Biodiversity Targets (CBD decision X/2) | REDD+-elements (UNFCCC decision 1/CP.16) | DLDD and SFM (SFM) (UNCCD decision 4/COP.8) | UNFF Global Objectives on Forests (E/2006/42 E/CN.18/2006/18) |
|---|---|---|---|
| 5. By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced. | Reducing emissions from deforestation<br><br>Reducing emissions from forest degradation<br><br>Conservation of forest carbon stocks | Reinforce SFM as a means of preventing soil erosion and flooding, thus increasing the size of atmospheric carbon sinks and conserving ecosystems and biodiversity. | Reverse the loss of forest cover worldwide through SFM, including protection, restoration, afforestation, and reforestation, and increase efforts to prevent forest degradation. |
| 7. By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity. | Sustainable management of forests<br><br>Actions are to be consistent with conservation of natural forests. | Reinforce SFM as a means of preventing soil erosion and flooding, thus increasing the size of atmospheric carbon sinks and conserving ecosystems and biodiversity. | Increase significantly the area of sustainably managed forests, including protected forests, and increase the proportion of forest products derived from sustainably managed forests. |
| 11. By 2020, at least 17 % of terrestrial areas are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas. | Conservation of forest carbon stocks<br><br>REDD-plus activities should be consistent with the objective of environmental integrity and take into account the multiple functions of forests. | Reinforce SFM as a means of preventing soil erosion and flooding, thus increasing the size of atmospheric carbon sinks and conserving ecosystems and biodiversity.<br><br>Strengthen the capacity of LFCCs to combat DLDD. | Increase significantly the area of sustainably managed forests, including protected forests. |

[135] Adapted from CBD, UNCCD and UNFCCC (2012) The Rio Conventions. Action on Forests.

| Aichi Biodiversity Targets (CBD decision X/2) | REDD+-elements (UNFCCC decision 1/CP.16) | DLDD and SFM (SFM) (UNCCD decision 4/COP.8) | UNFF Global Objectives on Forests (E/2006/42 E/CN.18/2006/18) |
|---|---|---|---|
| 14. By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable. | Conservation of forest carbon stocks<br><br>Enhancement of forest carbon stocks<br><br>REDD+ activities should promote and support full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities. | Strengthen SFM and integrated water management to maintain ecosystem services in affected areas, prevent soil erosion and flooding, increase the size of atmospheric carbon sinks, and conserve and sustainably use biodiversity. | Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest-dependent people. |
| 15. By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 % of degraded ecosystems. | Reducing emissions from deforestation and degradation<br><br>Conservation of forest carbon stocks<br><br>Sustainable management of forests<br><br>Enhancement of forest carbon stocks | Strengthen SFM and integrated water management to maintain ecosystem services in affected areas, prevent soil erosion and flooding, increase the size of atmospheric carbon sinks, and conserve and sustainably use biodiversity. | Reverse the loss of forest cover worldwide through SFM, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation. |

### *History of GEF Forest Funding: Lessons Learned from GEF-4 and GEF-5*

17. GEF's early efforts in the SFM were rather fragmented. GEF-4 introduced a more strategic and focused approach to SFM. That approach encompassed a mix of traditional forest management approaches, such as protected areas and integrated watershed management, as well as emerging aspects of forests such as their role in climate change mitigation. The GEF-4 strategy operated through a SFM program that rapidly developed a diverse portfolio of investments addressing individual GEF Focal Area aspects of forests or the multiple benefits of forest ecosystems through major programmatic approaches.

18. Acting on GEF Council guidance to foster a convergence of investments in more efficient and cost-effective projects and programmatic approaches, GEF-5 expanded and strengthened SFM efforts. Unique among GEF programs, this initiative supported countries to combine resources from Biodiversity, Climate Change, and Land Degradation Focal Areas for more comprehensive SFM/REDD+ multi-focal area (MFA) projects and programs. The GEF-5 SFM/REDD+ Incentive sought multiple global environmental benefits from the management of all types of forests and strengthening of sustainable livelihoods for people dependent on forest resources.

19. The objective of encouraging $1 billion investment in forests reinforced GEF's position as a significant funder of forest-related activities. The GEF SFM/REDD+ Incentive expanded GEF support for a wide range of activities. Some key lessons already emerging from this experience are:

(a) After a slow start due to the novelty of the incentive mechanism, it has proved effective in mobilizing resources for forests both within GEF and through co-financing, particularly through the programmatic approach modality. The SFM-REDD+ Program has contributed over $650 million towards forest projects. This compares with $470 million in GEF-4. The program has also encouraged a total of $4.35 billion in co-financing so far during GEF-5.

(b) The incentive mechanism has encouraged over 70 countries to target significant investments in a range of different forest types. These investments address a range of forest use situations, including strictly protected areas, mixed agricultural and forest landscapes, and community managed areas. In particular, GEF is promoting SFM as a tool for delivering multiple benefits at a range of levels, including REDD+ and through payment for ecosystem services (PES) mechanisms.

(c) The SFM/REDD+ incentive mechanism has supported an expansion in GEF investments in landscape-level approaches promoting an integrated approach to SFM. From GEF-4 to GEF-5, the focus of forest projects has developed towards integrated approaches rather than the previous predominance of forest projects directed at the creation and strengthening of protected area systems. Many projects aim at mainstreaming management practices to support biodiversity, reduce land degradation, and address REDD+ issues in active landscapes. This has included a wide range of sustainable livelihood opportunities for forest dependent communities. There are several areas of research that need to be strengthened to support REDD+ policy formulation, e.g. the role of access rights and tenure and of local institutions, inclusion of women, indigenous people and the importance of forests to local livelihood.

(d) Implementation of the incentive identified some issues to be considered for follow up:

(i) Tied to the use of STAR resources, the incentive focused attention on only national issues. This approach did not allow the potential for synergy between projects to be harnessed through addressing overarching thematic issues. While each project addresses important national issues, because of its diversity, GEF's forest portfolio has not had similar impact on issues facing forests regionally or globally.

(ii) Although the mechanism has led to over 50% of the incentive being drawn down, it is easier and more attractive for those countries with larger allocations and the ability to develop larger projects. Except in a small number of cases few countries have taken maximum advantage of the incentive. The incentive ratio of 3:1 may not provide suitable incentive for countries with more modest STAR allocations (particularly where forests are not on the development agenda) or the development of smaller SFM projects.

(iii) Financial support for regional projects and programmatic approaches are becoming more relevant for low forest cover countries (LFCCs) and small island developing states (SIDS). However, countries with modest forest resources tend to have fewer forest-focused staff and thus face a perennial issue when it comes to developing new projects. The programmatic approach for both LFCCs and SIDS will remain an important instrument for directing financial resources until the necessary capacity is built within national agencies.

(iv) While the major role of the private sector in the active management of forests is acknowledged, relatively few projects had substantial components led the private sector by or supported by private sector finance. In particular, the limited number of regional and global projects provided few opportunities for private sector engagement.

(v) Opportunity exists to enhance the level of cooperation with initiatives that also foster the objectives of SFM, such as FCPF, FIP, and UNREDD, as well as bilateral initiatives. Synergy with existing work should be sought so that GEF does not duplicate but builds on and complements it

## Goal and Objectives

*Strategic considerations*

20. GEF's SFM Strategy advocates an integrated approach at the landscape level, embracing ecosystem principles and including livelihood objectives in the management of forest ecosystems. Supporting an integrated approach to managing forest ecosystems, GEF aims to achieve multiple global environmental benefits, including those related to the protection and sustainable use of biodiversity, climate change mitigation and adaptation, and combating land degradation. By mainstreaming gender equality and women's empowerment into the SFM strategy for GEF-6, these benefits will be significantly enhanced.

21. The strategy develops synergy through multi-focal area programs and projects. The strategy recognizes the importance of forests in maintaining the Earth's critical life support systems and the need for management that considers the impacts and opportunities far beyond the forest boundary.[136] Thus the strategy is linked to the pilot integrated approach for Sustainable Cities through landscape level interactions between cities and the provision of forest-derived environmental services on which cities' future development depends. Given the important role that production of agricultural commodities plays in the continuing loss of forests, the strategy complements the focus of the pilot integrated approach on Taking Deforestation out of Commodity Supply Chains by helping governments avoid the loss of high conservation value forests. The SFM strategy will generate the following global environmental benefits addressing the emphasis placed by UNFCCC, CBD, and UNCCD, as well as UNFF, on the importance of conservation, sustainable use, and management of forests:

(a) Reduction in forest loss and degradation;

[136] Andraea, M., D. Rosenfield, P. Artaxo, A. Costa, G. Frank, K. Longo, M. Silva Dias. (2004) Smoking rain clouds over the Amazon. Science 303:1337-1342.

(b) Maintenance of the range of environmental services and products derived from forests; and

(c) Enhanced sustainable livelihoods for indigenous and local communities and forest-dependent peoples.

*Goal and Objectives*

22. The goal for the GEF-6 SFM strategy is to achieve multiple environmental benefits from improved management of all types of forests and trees outside of forests. The strategy supports the move away from governance with single sector focus towards management across institutional, commercial, and planetary system boundaries. This includes pristine, managed forests and degraded forest land. The program is applicable to forests under all forms of ownership, tenure, and use regimes including public, private, community, and traditional or customary arrangements.

23. The strategy acknowledges that countries vary significantly in their current development pathway, technical and institutional capacity, and the extent and nature of the forest resources with which they are endowed. The strategy recognizes the importance of integration with and support for existing efforts developing national strategies, programs, and frameworks relevant for SFM, including those focusing on biodiversity, climate change adaptation, and REDD+ readiness. The strategy also recognizes the importance of multi-stakeholder approaches for SFM and encourages wide stakeholder engagement and involvement including indigenous communities, civil society, the private sector, and local communities.

24. The strategy provides options for tackling the drivers of deforestation and forest degradation that recognize differing country circumstances while supporting the development of forests' role in national and local sustainable development plans. Four objectives will drive the SFM portfolio and contribute to the goal:

(a) Maintained Forest Resources: Reduce the pressures on high conservation value forests by addressing the drivers of deforestation.

(b) Enhanced Forest Management: Maintain flows of forest ecosystem services and improve resilience to climate change through SFM.

(c) Restored Forest Ecosystems: Reverse the loss of ecosystem services within degraded forest landscapes.

(d) Increased Regional and Global Cooperation: Enhance regional and global coordination on efforts to maintain forest resources, enhance forest management, and restore forest ecosystems through the transfer of international experience and know-how.

***SFM-1: Maintained Forest Resources: Reduce the pressures on high conservation value forests by addressing the drivers of deforestation.***

*Rationale*

25. Primary forests account for 36% of the total forest area. Forest ecosystems are still disappearing at an alarming rate and remaining forest areas suffer from fragmentation.[137] The loss of ecosystem services from high conservation value forests includes disappearing plant and animal species, diminished ability to sequester carbon, and reduced production capacity because of lost soil and water retention. In addition, forest-dependent people struggle to sustain livelihoods once forest-based opportunities are removed. The social benefits of high conservation value forests, combined with good governance, can contribute to local peace and stability. It is well known now that gender equality is essential for good governance.

26. This objective will address the drivers of loss of high conservation value forests by promoting the enabling environment for integrated planning within a range of governance levels that recognizes and incorporates the true value of forests in natural resource decision-making in both the public and private sectors. This objective will support national strategies to reduce emissions from deforestation which foster intra-governmental and cross-sector integration, including those being developed through REDD+ readiness and support for REDD+ Phase II initiatives. Collaboration and synergy will be sought with initiatives such as the Forest Investment Program, Forest Carbon Partnership Facility, and UN-REDD, as well as bilateral support such as the Government of Norway's International Climate and Forest Initiative. This objective seeks to identify the key values that forests contain or provide and to incorporate the multiple functions and services of forests into decision making. The concept of high conservation value forests[138] can be a multi-stakeholder means of identifying key values as the basis for sustainable decision making consistent with the protection of forests with important environmental and social values.

27. The objective will support sustainable land-use policy development and planning combined with large-scale applications on the ground to avoid further loss and fragmentation of high conservation value forests and the maintenance of forest ecosystem services. This objective will foster and enhance existing private sector engagement, in particular through corporate alliances with sector leaders as well as working with governments to improve the enabling conditions to avoid the loss of high conservation value forests. This objective develops synergy with the efforts on protected areas and the mainstreaming of biodiversity relevant management technologies within the Biodiversity Focal Area and the promotion of carbon stocks within the Climate Change Focal Area. By maintaining vital forest functions and high levels of biodiversity the program also maintains forest resilience to climate change, and ensures GEF investment sustainability.

[137] Kissinger, G., M. Herold, V. De Sy (2013) Drivers of Deforestation and Forest Degradation. A Synthesis report for REDD+ Policy Makers

[138] There are a number of mechanisms available for identifying and managing forests with important conservation values, these include, inter alia, definitions and processes described by The HCV Network www.hcvnetwork.org and the Programme for the Endorsement of Forest Certification www.pefc.org.

*Outcomes*

28. The following key outcomes will be achieved under this objective:

    (a) Cross-sector policy and planning approaches at appropriate governance scales, avoid the loss of high conservation value forests;

    (b) Innovative mechanisms avoid the loss of high conservation value forest.

*Programs*

29. Programs addressing this strategic objective may for example focus on:

    (a) Integrated land use planning: Many developing countries need to review and revise their policies and laws pertaining to forests, agriculture, infrastructure development and mining to effectively address the drivers of deforestation. Providing tools and methodologies for valuing natural resources and identifying appropriate policy and economic incentives through engagement of indigenous and local communities and other civil society stakeholders are key supporting capacities for this programmatic priority. Supporting forest, agriculture, and energy policy and related legal and regulatory frameworks reformulation and action plans for land use and land-use change driven by agriculture and bio-energy production can address the drivers of deforestation.

    (b) Identification and maintenance of high conservation value forests: A wide range of organizations use the high conservation value forest concept as a way to identify and support the conservation of important forest areas. In particular, its adoption by the private sector to identify important areas in planning as well as a means of identifying and supporting the implementation of an integrated, inter-sectoral and inter-institutional approach to SFM highlight the potential of this approach in addressing the drivers of deforestation. By supporting its adoption in active landscapes undergoing rapid development, this programmatic priority will help to identify and protect the most important forest resources and maintain critical ecosystem services.

    (c) Identifying and monitoring forest loss: Recent years have seen significant technological advances in the identification of forest loss. Equipment and data are more widely availability and less expensive, offering governments new opportunities to understand the modalities of forest loss and their potential landscape impacts. However, a lack of capacity means few countries have been able to take advantage of these advancements. This programmatic priority supports the development of technical and institutional capacities to identify and monitor forest loss. Countries will be able to make sustainable land-use decisions, target specific drivers of deforestation, and engage with forest carbon and REDD+ initiatives, including mechanisms that allow for generation of revenues from forest carbon.

***SFM-2: Enhanced Forest Management: Maintain flows of forest ecosystem services and improve resilience to climate change through SFM.***

*Rationale*

30. Thirty percent of the world's forests, 1.2 billion hectares, are used primarily for production of wood and non-wood forest products. An additional 949 million hectares (24%) are designated for multiple-use – in most cases including the production of wood and non-wood forest products.[139] While 12% of the world's forests are protected, the costs of enforcing strict protection on any more and potential curbs on livelihoods mean that forests must generate wealth, provide employment, and deliver a range of environmental services. The development and implementation of SFM across a range of scales and governance models based on sustainable practices[140] is a priority for a future in which forests contribute through productive and conservation functions. The challenge is to develop mechanisms that make SFM competitive with unsustainable uses of forests. The contribution of forests to sustainable development, their potential to provide livelihood opportunities and assist in poverty reduction, is not fully recognized. Often the true value of forest resources is unknown or not estimated to be high enough to attract the attention of policy makers and private investors alike.[141]

31. Forest policies and land tenure legislation has been revised in some countries,[142] enabling the participation of a range of parties in forest management, including indigenous people, community groups, farmers and the wider private sector. Joint forest management between government and local communities and management by forest-user groups is spreading. While modernization of forest departments is taking place, many are undergoing change to their structure and functions.[143] Responsibilities are likely to shift from direct management of forests as stewardship of forests is further devolved to the private sector and local communities. Forest law enforcement and governance efforts are providing a focus for renewed interest in transparent processes for strengthening forest governance and are providing opportunities for synergies between national approaches.[144]

32. Traditional and community managed forests have been shown to provide enhanced opportunities for the improvement and maintenance of carbon stocks and the conservation of biodiversity, as well as providing livelihood opportunities for rural communities.[145] PES systems interact with financial, natural, and social assets that underpin local livelihoods. PES can have important impacts on local and indigenous peoples' livelihoods and the maintenance of forest ecosystem services. However, the design and implementation of PES schemes, including how to address climate adaptation, tenure and rights insecurity, benefit sharing and local communities'

[139] FAO (2010) Global Forest Resources Assessment 2010.
[140] Sustainably managed forest is identified in line with ITTO Assessment of the Status of Tropical Forest Management 2006.
[141] TEEB (2010) The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature. A synthesis of the approval, conclusions and recommendations of TEEB.
[142] FAO (2013) Voluntary Guidelines on the Responsible Governance of Tenure of Land, and Forests in the Context of National Food Security.
[143] FAO (2009) Towards National Financing Strategies for Sustainable Forest Management in Latin America.
[144] IUFRO (2010) Embracing Complexity: Meeting the Challenges of International Forest Governance.
[145] IUFRO (2012) Understanding Relationships Between Biodiversity, Carbon, Forests and People: The Key to Achieving REDD+ Objectives.

capacity still require development to avoid unnecessary trades-off between efficiency, effectiveness, equity, and social welfare. This is an area where enhancing innovative strategies developed by women at the community level can increase benefit sharing.

33. This objective will support the implementation of SFM within all types of forest across the UNFF's seven SFM themes to promote the continued provision of the widest possible range of forest derived benefits, products, and services. This objective will support the implementation of SFM by public, private, and local community organizations including women and other often disadvantaged groups and address the barriers that prevent the uptake and spread of SFM in developing countries including technical, capacity, and financial aspects. It promotes the mobilization of forest finance in particular through national forest programs and financing strategies, taking into account forests' links with poverty eradication, food security, climate change adaptation, and rural development as well as the importance of forest ecosystems within transnational water catchments. This objective develops synergy with the mainstreaming of conservation and sustainable use of production landscapes in the Biodiversity Focal Area, the promotion of carbon stocks within the Climate Change Focal Area and with the provision of sustainable flows of ecosystem services such as the provision of freshwater in forests and trees outside forests in rural production landscapes within the Land Degradation Focal Area.

*Outcomes*

34. The following key outcomes will be achieved under this objective:

(a) Increased application of good management practices in all forests by relevant government, local community and private sector actors;

(b) Increased contribution of sustained forest ecosystem services to national economies and local livelihoods.

*Programs*

35. Programs addressing this strategic objective may for example focus on:

(a) Developing and implementing model projects for PES: The extent of human dependence on forest ecosystem services and how best to maintain these is a key question in many forested countries. PES is acknowledged as one mechanism that allow societies to support the maintenance of these services. PES schemes offer potential to raise new funds for SFM or to use existing funding more efficiently. Both the public and private sectors can play a role in establishing PES. However, for PES to effect change at scale there is a need to build capacity at the local and national level to properly design and implement PES schemes and promote their uptake and use. This programmatic priority supports activities such as modifying the policy and regulatory frameworks, building human and institutional capacity, or setting up and implementing pilot PES schemes and initiating public-private partnerships for the inclusion of market forces into PES schemes.

(b) Capacity development for SFM within local communities: The increased devolution of forest management to local communities and indigenous peoples provides opportunities for a range of livelihood, sustainable development, and

conservation benefits. In many cases, capacity for community based forest management is limited and the realization of the potential benefits is unfulfilled. Additionally, inadequate and insecure tenure rights increase the vulnerability of forest dependents, and can lead to conflict and environmental degradation when users compete for control of forest resources. This programmatic priority provides support for SFM that builds on the conservation of traditional knowledge and management practices. Local communities will be empowered to develop a range of sustainable livelihoods based on SFM to maintain forest resources and ecosystem services as well as support climate change adaptation efforts. Providing capacity building and incubation support for the private sector will help develop sustainable market links between local communities and the wider private sector.

(c) Supporting sustainable finance mechanisms for SFM: National assessments of the net benefits of SFM and the incorporation of forests within natural capital and resource accounting initiatives are crucial for improving public and private decision making on forests and land use and are the focus of this programmatic priority. These assessments would then be integrated into national policy and planning processes by identifying sustainable uses of forest resources and developing mechanisms for sustainable finance, in particular the injection of greater private sector investment

***SFM 3: Restored Forest Ecosystems: Reverse the loss of ecosystem services within degraded forest landscapes.***

*Rationale*

36. Degradation can occur as a prolonged process as constituent elements of the forest are run down or even lost over many years or decades but remnant forest characteristics remain intact. The extent of degraded forest is considerable and the potential exists to prevent complete forest loss and maintain important ecosystem services. The Global Partnership on Forest Landscape Restoration suggests that more than two billion hectares of deforested and degraded land worldwide are suitable for restoration.[146] Farmer assisted regeneration in the Sahel zone and 'mountain closures' in the Chinese Loess Plateau are among the encouraging examples on how degraded forest landscapes can be brought back to life and made functional again, especially by assisted natural regeneration.

37. The restoration of forest lands offers the potential to support the maintenance and rehabilitation of forest ecosystem services and the development of sustainable product flows as well as creating livelihood opportunities for local communities. Forest landscape restoration also offers the opportunity for greater private sector involvement, across a range of scales and tenure arrangements. In many cases, policy environments do not promote private sector investment in degraded lands but rather allow easier expansion into forested areas. GEF support for developing enabling conditions and the risk of investment in degraded lands could provide catalytic change in how degraded lands are viewed and utilized by both the public and private sectors.

[146] Global Partnership on Forest Landscape Restoration (2013) Assessing national potential for landscape restoration: A Briefing Note for Decision-Makers.

38. This objective will help slow the loss of environmental services from forest landscapes that are currently undergoing degradation, and will also help restore environmental function to landscapes that have already been degraded. This objective will support efforts at both enabling environment and field level. The objective will encourage efforts to identify degraded forest areas and undertake climate resilient restoration activities that will reduce the pressure on forests with high conservation values and maintain important ecosystem services. In particular this objective will focus on the restoration of forest landscapes to restore a wide range of ecosystem services, while at the same time ensuring the support of local livelihood opportunities, enhanced climate change resilience, and sustainable development efforts. Restoration activities can include a range of management objectives, all of which will support the achievement of SFM. At the landscape level this may include a wide range of land uses, management regimes, and land users. GEF will give priority to restoration efforts that utilize natural processes as far as possible, including natural regeneration, assisted natural regeneration, and planting of indigenous tree species. This objective links with LULUCF activities within the Climate Change-Mitigation Focal Area, the Land Degradation Focal Area's activities on maintaining forest ecosystems services in production systems and the reduction of pressures on natural resources from competing land uses, and the Biodiversity Focal Area's activities on managing the Human-Biodiversity interface.

*Outcomes*

39. The following key outcomes will be achieved under this objective:

(a) Integrated landscape restoration plans to maintain forest ecosystem services are implemented at appropriate scales by government, private sector and local community actors.

*Programs*

40. Programs addressing this strategic objective may for example focus on:

(a) Building technical and institutional capacities to identify degraded forest landscapes and monitor forest restoration: The implementation of restoration at scale is hampered by a lack of capacity. In particular there is a need for improved landscape level planning processes to rehabilitate ecosystem services and create livelihood opportunities. Additionally, this programmatic priority will support innovative finance mechanisms for restoration, including PES and testing of public-private approaches that allow for generation of revenues from options such as forest carbon, will result in forest landscape restoration at scale.

(b) Integrating SFM in landscape restoration: Broad-scale landscape restoration requires the combination of mixed land uses in order to support extensive restoration operations. Such restoration remains an elusive goal. The opportunity exists to capture potential synergy between reforestation efforts, local community livelihood opportunities, and the restoration of forest ecosystem services. By supporting the development of integrated natural resource management including agroforestry techniques, especially for small scale land users, a mix of conservation, commercial, and community focused restoration can be achieved through this programmatic priority.

***SFM 4: Increased Regional and Global Cooperation: Enhanced regional and global coordination on efforts to maintain forest resources, enhance forest management and restore forest ecosystems through the transfer of international experience and know-how.***

*Rationale*

41. Major international bodies, including UN General Assembly, have stressed the increasing relevance and importance of South-South Cooperation for capacity building and knowledge transfer. In the context of capacity building, the considerable experiences and successes that many developing countries have achieved in SFM and REDD+ can provide valuable impetus and ideas for other countries in the South to address similar concerns and challenges. South-South Cooperation can increase the flow of information, resources, expertise, and knowledge across all sectors among developing countries in a cost-effective way.

42. The work of the UNFF Facilitative Process has clearly identified the importance of regional collaboration and cooperation on forest finance and other issues among LFCCs and SIDS. The UNFF has also called for strengthened coordination and cooperation to build on existing regional and international mechanisms to implement SFM including national forest programs, criteria, and indicators for SFM, and other monitoring and assessment tools. The Collaborative Partnership on Forests (of which GEF is a partner) has also been invited to support cooperation on forest law enforcement and governance.

43. The issues facing forests can rarely be addressed in isolation. Many issues are of a transboundary and regional nature that cannot be addressed by national projects alone. Transboundary and regional cooperation addressing thematic gaps and geographic issues can help support national efforts as well as improve linkages with FCPF, UN-REDD and wider REDD+ readiness processes. The support of regional and global cooperation will also help to tackle pressing forest issues such as policy integration and dissemination of lessons learned, the application of key technologies in monitoring, and regional watershed management issues. This objective will support the development of forest management that considers issues across institutional and sector boundaries to develop novel and adaptive approaches to SFM at local and regional scales.

*Outcomes*

44. The following key outcomes will be achieved under this objective:

(a) Improved collaboration between countries and across sectors on the implementation of SFM.

*Programs*

45. Programs addressing this strategic objective may for example focus on:

(a) Private sector engagement: There is increasing recognition that the private sector and public-private partnerships have important roles to play in achieving SFM and sustainable land-use. It is important to consider both the role of the private sector in financing a transition to SFM, and the role of the private sector as a key stakeholder and driver of deforestation, notably in agriculture, mining, and other key sectors. However, few national REDD+ strategies or National Forest Programs explicitly address the engagement of the private sector. Private sector engagement is a programmatic priority for example through value chain financing for products from sustainably managed forests, can benefit from regional approaches, as key private sector actors are often active across several neighboring countries, and regional approaches can reduce the costs of engagement, as well as provide inspiration between countries for best practices to engage the private sector.

(b) Global technologies for national progress: In recent years, technological progress has supported countries in achieving global environmental benefits. For example, cost-effective technologies for community-based natural resource monitoring has benefitted from the development of key technologies at global level, which has then been tested and improved at national level. Likewise, the recent progress in tracking illegal timber through the use of a range of techniques is now being verified and tested in GEF-eligible countries. This programmatic priority in GEF-6 would continue to invest in the development of key technologies to enable the achievement of Objectives 1-3 of the SFM strategy, preferably linked with national-level testing and further development of such technologies, in particular through partnerships and alliances with the private sector.

***Programming of SFM Resources for an Amazon Basin Program***

46. The SFM Strategy offers the opportunity for investments that support measures to control and prevent deforestation and forest degradation as essential and cost-effective means to deliver multiple global environmental benefits, including the protection of forest habitats, forest ecosystem services, mitigation of climate change and protection of international waters, reflecting the transversal nature of forests globally.

47. An example of how the synergies between the SFM objectives can be better reflected in an innovative approach to reduce deforestation, prevent forest degradation, promote sustainable livelihoods and reduce poverty for all forest-dependent peoples is provided by the proposed program “A New Development Path for the Amazon Basin”.

48. The Amazon basin covers an area of almost 8 million square kilometers and includes 610 Protected Areas and 2,344 indigenous territories that cover 45 percent of the basin. The Amazon rainforests contain one of the greatest concentrations of plants, animals, and microorganisms on the planet. More than 40% of the rainforest remaining on Earth is found in the Amazon and it is home to at least 10% of the world’s known species. Many of the species in the Amazon, and

particularly those at the top of the food chain, have evolved in an environment dominated by enormous tracts of undisturbed, closed canopy forest. The survival of these species and ecological processes requires a network of large and well-connected protected areas that cover representative samples of the different vegetation and habitats types situated within sustainably managed production landscapes.

49. Investments by GEF and other donors in the Amazon basin during the last decade have resulted in significant conservation successes and secured global environmental benefits. GEF will build on this substantial baseline of investments and political will to help secure these benefits for the long-term through an integrated approach to sustainably manage the forest ecosystems of the Amazon basin. As currently formulated, a GEF-6 investment is envisioned in the Amazon Basin, initially involving Brazil, Colombia, and Peru. Together these three countries cover approximately 80% of the surface area of the Amazon. They share a common set of threats and opportunities for collaboration to improve sustainable forest management in the Amazon basin and generate global benefits in the GEF focal areas of biodiversity, climate change, and chemicals. Other GEF-eligible countries that share the Amazon basin and the common vision could be included during development of the program.

50. This program will complement the work of participating countries that are currently implementing activities, primarily at the national level; to conserve and sustainably use biodiversity, sustainably manage forests and prevent deforestation, and regulate extractive industries in the Amazon. In addition, it will support economic development options based on sustainable natural resources management that will contribute to poverty reduction and stabilization of the agricultural frontier in the forest landscape. Activities supported under this initiative will avoid adverse consequences for the most vulnerable groups, including indigenous peoples and local communities, especially women. Intervention opportunities for GEF support identified by the countries to date include:

(a) Strengthening the policy, legal, and, regulatory frameworks that govern the activities of the production sectors at national and regional levels to incorporate biodiversity and other environmental sustainability considerations;

(b) Conserving globally significant biodiversity through creation of new national and transboundary protected areas;

(c) Improving management effectiveness and financial sustainability of new and existing protected areas and indigenous territories; and

(d) Promoting sustainable forest management and other biodiversity mainstreaming options in the production landscape.

51. The SFM Strategy actively seeks the development of similar multi-focal and multi-country approaches throughout GEF-6.

### *Operational Aspects of the GEF-6 SFM Funding Envelope*

52. The GEF-6 SFM Strategy proposes to build on the successes of the GEF-5 SFM/REDD+ Incentive Mechanism by further developing and refining the incentive in order to maintain continuity in the approach without making it more complicated. The GEF-6 SFM Strategy is based on a dedicated SFM funding envelope operated as an incentive mechanism to encourage countries to invest portions of their allocations from biodiversity, climate change, and land degradation in fully integrated multi-focal area SFM projects and programs. This approach creates synergy, especially in landscape-scale projects where the incentive will make sure that the project has a clear forestry focus by applying the SFM impact indicators to the entire project.

53. The GEF-6 SFM Strategy builds on the experience of GEF-5 and takes into consideration the suggestions to simplify and clarify access and give special consideration to Least Developed Countries and Small Island Developing States from a number of fora, including those of COP Decision X/36, Decision 11/COP.11 and notes the output from UNFF10. It also takes into consideration the findings of the Evaluation Office which highlights the success of the incentive in expanding the geographic range of SFM programming as well as the challenges faced by countries with the most modest STAR allocations in prioritizing and programming funds to forests when faced with a range of demands on resources. The operational aspects of the GEF-6 SFM funding envelope are therefore prepared in order to streamline access to the envelope and provide effective incentive to those countries facing the greatest challenge in programming investments in SFM at an ecologically and operationally significant scale.

54. In order to achieve synergy within SFM projects and programs between the Biodiversity, Climate Change, and Land Degradation Focal Areas, countries will be required to invest national allocation from at least two of the three Focal Areas. As an effort to improve access, countries with flexible allocations are at liberty to use this full flexibility and are required to invest national allocation from at least one Focal Area. The allocation of resources to projects and programs addressing SFM issues will be carried out through an incentive mechanism where all countries are supported at a ratio of 2:1.

55. To ensure countries have access to sufficient funding to invest in SFM at an ecologically and operationally significant scale, each country is required to invest a minimum of $2 million from their national allocations in order to qualify for incentive investments from the SFM envelope. Where projects and programs involving two or more countries are proposed, the $2 million minimum is assessed collectively. Countries are eligible to access up to a maximum of $10 million from the SFM Incentive supported with qualifying investments from their national allocations.

56. In addition to the incentive mechanism as described above and in order to address the collaborative and cooperation issues identified through GEF-5, the SFM Strategy will offer on a competitive basis, support for targeted investments to increase regional and global cooperation on major SFM issues such as the participation of indigenous peoples, civil society organizations, and the private sector in SFM through networking, South-South cooperation, and sharing of international experience and know-how (SFM Objective 4).

**SFM Resource Envelope**

57. The SFM strategy is based on a resource envelope of $250 million. The SFM Strategy Resource Envelope will be used to support forest-related activities within the following pilot integrated approaches: Sustainable Cities – Harnessing Local Action for Global Commons ($10 million) and Taking Deforestation out of Commodity Supply Chains ($10 million). The proposed indicative breakdown of resources for programming within the SFM Strategy in GEF-6 is presented in Table 2.

**SFM Table 2 - Indicative Allocations of SFM Strategy Resources for Programming in GEF-6.**

| SFM Strategy Objective | Indicative Allocation ($ million) |
|---|---|
| SFM1 – Maintained forest resources | 70 |
| SFM2 – Enhanced forest management | 80 |
| SFM3 – Restored forest ecosystems | 50 |
| SFM4 – Increased regional and global cooperation | 30 |
| Contribution to Integrated Approach Pilots | 20 |
| **Total** | **250** |

58. The SFM Strategy includes provision for the development of a regional program within the Amazon Basin to promote regional cooperation and collaboration to jointly address common drivers of deforestation and unsustainable use of natural resources and support economic development options based on sustainable natural resources management that contribute to poverty reduction and stabilization of the agricultural frontier in the forest landscape. Provision is made for up to $45 million on a 2:1 ratio for development of the program and will operate in addition to the maximum eligibility ceiling of $10 million for those countries involved. The program is anticipated to address multiple SFM objectives but the full scope and extent of this will be determined during development of the concept. The final proposal would be brought by the lead agency to the GEF Council for approval, in line with usual procedures.

**Results Framework**

**Goal:** To achieve multiple environmental, social and economic benefits from improved management of all types of forests and trees outside of forests.

**Impacts:** Sustainable management of forest resources that improves rural livelihoods to achieve environmental benefits.

**Indicators:**

(a) Reduction in forest loss and forest degradation (% reduction);

(b) Maintenance of the range of environmental services derived from forests (number of services maintained);

(c) Enhanced sustainable livelihoods for local communities and forest-dependent people (% increase in income of women and men).

**Gender Indicators:**
The SFM Strategy projects will use and incorporate GEF Gender Indicators, which will be monitored and aggregated at the Focal Area portfolio and Corporate levels. [147]

**Portfolio Level Outcome Target:**

(a) 20 million hectares of forest landscapes under improved management.

[147] Refer to the core GEF Gender Indicators identified under the gender section of the Strategic Positioning Paper for GEF-6 replenishment. The five Gender Indicators are:
1. Percentage of projects that have conducted gender analysis during project preparation.
2. Percentage of projects that have incorporated gender sensitive project results framework, including gender sensitive actions, indicators, targets, and/or budget.
3. Share of women and men as direct beneficiaries of project.
4. Number of national/regional/global policies, legislations, plan, and strategies that incorporates gender dimensions (e.g. NBSAP, NAPA, NAP, TDA/SAP, etc).
5. Percentage of Project Implementation Reports (PIR), Mid-term Evaluation (MTE) and Terminal Evaluation Reports (TER) that incorporate gender equality and women's empowerment and assess results/progress.
Projects will use gender-sensitive indicators and sex-disaggregated data, and it will be systematically recorded, reported and integrated into adaptive management responses at the project level. GEF will undertake periodic reviews of the portfolio and highlight best practices in mainstreaming gender in projects, including through Annual Monitoring Review and Learning Missions.

| Objectives | Programs | Expected Outcomes and Indicators |
|---|---|---|
| SFM-1: Maintained Forest Resources: Reduce the pressures on high conservation value forests by addressing the drivers of deforestation. | Program 1: Integrated land use planning.<br><br>Program 2: Identification and maintenance of high conservation value forests.<br><br>Program 3: Identifying and monitoring forest loss. | Outcome 1: Cross-sector policy and planning approaches at appropriate governance scales, avoid loss of high conservation value forests.<br>*Indicator 1: Area of high conservation value forest identified and maintained.*<br><br>Outcome 2: Innovative mechanisms avoid the loss of high conservation value forest.<br>*Indicator 2: Number of incentive mechanisms to avoid the loss of high conservation value forests implemented.* |
| SFM-2: Enhanced Forest Management: Maintain flows of forest ecosystem services and improve resilience to climate change through SFM. | Program 4: Developing and implementing model projects for Payments for Ecosystem Services.<br><br>Program 5: Capacity development for SFM within local communities.<br><br>Program 6: Supporting sustainable finance mechanisms for SFM. | Outcome 3: Increased application of good management practices in all forests by relevant government, local community (both women and men) and private sector actors.<br>*Indicator 3: Area of sustainably managed forest, stratified by forest management actors.*<br><br>Outcome 4: Increased contribution of sustained forest ecosystem services to national economies and local livelihoods of both women and men.<br>*Indicator 4: The number of forest policies that include valuation and accounting of economic, social and environmental benefits and services.* |
| SFM-3: Restored Forest Ecosystems: Reverse the loss of ecosystem services within degraded forest landscapes. | Program 7: Building technical and institutional capacities to identify degraded forest landscapes and monitor forest restoration.<br><br>Program 8: Integrating SFM in landscape restoration. | Outcome 5: Integrated landscape restoration plans to maintain forest ecosystem services are implemented at appropriate scales by government, private sector and local community actors, both women and men.<br>*Indicator 5: Area of forest resources restored in the landscape, stratified by forest management actors.* |
| SFM-4: Increased Regional and Global Cooperation: Enhanced regional and global coordination on efforts to maintain forest resources, enhance forest management and restore forest ecosystems through the transfer of international experience and know-how. | Program 9: Private sector engagement.<br><br>Program 10: Global technologies for national progress. | Outcome 6: Improved collaboration between countries and across sectors on the implementation of SFM.<br>*Indicator 6: Development and strengthening of networks to promote regional and global cooperation.* |

# INTEGRATED APPROACHES

## INTRODUCTION

### Integrated Approaches to the Global Environment for the Implementation of Multilateral Environmental Agreements and Promoting Sustainable Development

1. Over the past 22 years, GEF has supported a diverse portfolio of projects and programs in developing countries, in partnership with a wide variety of agencies, governments, civil society organizations, private sector and other players. This collective body of investments, totaling $11.5 billion, has inspired the Scientific and Technical Advisory Panel (STAP) to articulate GEF's potential mission as one of "Securing the sustainable delivery of global environmental benefits through [investments in] collective action to sustain Earth's life-support systems, resulting in improved human well-being and social equity."

2. Reflecting on this mission articulation, one of the key features of the GEF since its inception has been stimulating experimentation and risk-taking through piloting innovative approaches to deal with existing and emerging complex challenges facing the global environment. One such direction originating in the academic, public and practitioner sectors is reconnecting environment-related investments previously segregated under discrete silos into more integrated portfolios that can better deal with time-bound problems that are also multi-faceted in nature. As an example, STAP has recently proposed a number of pilot initiatives that can help test an innovative conceptual framework to "improve the relevance and effectiveness of the GEF in delivering support to the emerging post-2015 global sustainable development agenda," while at the same time being fully aligned and in support of the Multilateral Environmental Agreements (MEAs) for which GEF serves as a financial mechanism. This integrated approach would be crosscutting, synergistic, and cost-effective, and directed at some of the underlying drivers of environmental degradation globally and within priority regions. The integrated approach pilots would complement GEF focal areas strategies in the upcoming GEF-6 portfolio, and seek to further encourage early adoption and scaling up of projects and programs that overcome focal area silos and build on the necessary linkages that help achieve sustainable development goals. This systemic, sectoral and cross-cutting framework will also include renewed emphasis on private sector, gender equality and women's empowerment.

### Background

3. As recognized by recent landmark global forums such as the UN Conference on Sustainable Development (UNCSD, or Rio+20) and the Planet Under Pressure conference, incremental gains and business as usual alone will not bring us closer to meeting internationally accepted targets when dealing with the global environment. Despite significant progress in some areas, several prominent studies concluded that because the global environmental challenges are tightly interdependent, they require more systemic responses. The framework of the "Planetary Boundaries" that defined a proposed safe operating space for humanity over the next several decades has set off alarm bells regarding many dangerous tipping points of environmental degradation. Therefore, sector by sector or issue by issue approaches alone will not change the status quo or reverse some of the most worrisome trends for the global environment, while certain priority issues also require immediate attention lest they will become irreversible or too costly to address.

4. The Framework for Action reiterated the original themes tackled by GEF and the associated conventions established in the 1992 Earth Summit, and highlighted GEF's role in financially supporting these global efforts. But the Framework also went further in identifying the remaining gaps that need to be addressed in order to build a truly transformative approach to sustainable development, mostly already included in GEF's existing programmatic purview. An underlying principle that defines most of these gaps is the multi-disciplinary nature of both the threats to the global environmental commons and the solutions to them. GEF operates across the majority of the priority themes and gaps, offering tremendous opportunities for it to test ways to become more relevant to the plight of the global environment while fulfilling the mandate to support key international environmental accords.

5. The need for synergies derives directly from the conventions themselves. The key environmental conventions largely highlight the linkages that exist between their respective objectives and the desire to maintain cost-effectiveness through joint implementation arrangements. Most of these conventions, many of which GEF serves as a financial mechanism, also recommend actions to promote complementarity and synergy in seeking multiple environmental benefits. In this context, the GEF trust fund is unique among multilateral financial mechanisms in its ability to integrate and reinforce objectives to promote transformational change.

**Piloting a New Integrated Approach to Generating Global Environmental Benefits**

6. A new and more integrated approach is needed to strengthen GEF's capacity to respond as a prime financial mechanism that is also able to tackle urgent issues for the global environment. A pilot effort is proposed to support activities in recipient countries that can help them meet commitments to more than one global convention or thematic area by tackling underlying drivers of environmental degradation. While GEF strategies are articulated by separate focal area programs, and draw closely on specific Convention guidance, a more integrated approach can complement existing work by building on existing linkages and connections across the different focal areas, reflecting the needs and growing demand from recipient countries. The Integrated Approaches Pilot should be subject a review by the end of the GEF-6 cycle to derive findings and recommendations pertaining to the framework itself as well as to aspects related to its impact and cost-effectiveness.

7. Building on existing GEF programming modalities, a set of pilot investments is proposed to test delivery of a more integrated approach that address discrete, time-bound global environment challenges whose resolution are closely aligned with targets and goals of the MEAs which GEF serves as a financial mechanism. This pilot would fund activities with the following key features:

(a) Address key drivers of environmental degradation at global or regional scales;

(b) Tackle most urgent time-bound issues or problems which may become too costly to reverse;

(c) Build and improve on focal area synergies leading to greater and sustained impact;

(d) Complement country programming with transboundary, regional and global scale action;

(e) Use GEF's wider partnership to bring stakeholders together on a selected priority issues;

(f) Crowd-in private sector engagement to enhanced financial leverage and reinforcing GEF's catalytic role;

(g) Respond to the Rio+20 outcomes and evolving post-2015 agenda;

(h) Improve evidence-based design and implementation to enhance learning and effectiveness of interventions.

**Why Priority Themes?**

8. Three priority themes have been selected for the pilot program as important and urgent global agendas where GEF resources can fulfill a critical niche to help transform and scale up the ongoing work of others. The small number of pilots attempts to balance regional and global approaches with a representative selection of thematic issues of high priority for the global environment and associated implementation arrangements. Taken together, the pilots should produce enough evaluative evidence to assess the pros and cons of integrated approaches in delivering global environmental benefits across multiple objectives and conventions while tackling key drivers of environmental degradation.

9. All themes involve a need to address global environment issues more holistically and within a much broader and more complex set of development challenges. GEF contributions to these challenges would seek to ensure that key global environment issues are adequately considered in this broader context, and would identify the most effective ways to use limited concessional funds in innovative ways to reach a higher impact and scale. All three pilots included in this proposal were also identified as priorities in the independently-produced study conducted by STAP (Enhancing GEF Contribution to Sustainable Development). This is a good indication of programmatic priority convergence that draws on the understanding of existing trends, and the potential for synergies and greater efficiency in project design and implementation.

10. Drawing on these features, for GEF-6 three pilots will be implemented:

(a) Taking Deforestation out of Commodity Supply Chains;

(b) Sustainable Cities - Harnessing Local Action for Global Commons; and

(c) Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa.

11. Jointly tackling energy, water, soils and food is essential for sustainable development. Therefore, the Fostering Sustainability and Resilience for Food Security in Africa pilot integrated approach is proposed to build on the nexus between these themes to promote greater impact and efficiency in the overall investments. Sustainable Cities offers a direct pathway to secure higher returns for the investment given that cities are now responsible for over 70 percent of carbon dioxide emissions globally. Some ecosystems are close to tipping points, but there are still critical interventions to help stimulate effective and targeted action. Finally, the integrated approach Taking Deforestation out of Commodity Supply Chains will work with the private sector (producers) and consumers to tackle some of the principal drivers of forest loss in developing countries.

**Leveraging the Wider Partnership**

12. Integrated Approaches Pilots will serve to both focus efforts and optimize deployment of GEF resources. An initial consultation with countries, agencies, GEF Secretariat and other relevant partners will identify the most proper implementation arrangement, including the identification of a lead agency for each pilot. Once the relevant agencies are identified, each pilot would establish an inter-agency team in coordination with the GEF Secretariat to help complete the preparation process with interested and/or relevant countries, other partners and co-financiers. The final proposal would be brought by the lead agency to the GEF Council for approval, according to usual procedures. The proposals should include results frameworks and associated indicators, as well as elements that would allow the review and evaluation of the effectiveness and impact of the pilots. As one of the key objectives of the pilots is to catalyze wider action, the preparation process would be used to engage with a wider set of interested partners, and help define critical gaps and barriers to a broader and more integrated approach. The process would also seek to define the best niche for GEF funds to enable and scale up the work of others, including stimulation of increased private sector engagement.

13. Based on the *GEF Policy on Gender Mainstreaming* and the renewed approach presented for GEF-6,[148] the preparation process for the Pilot Integrated Approaches, and their implementation, monitoring and evaluation, will integrate gender mainstreaming and women's empowerment through its activities. The importance of gender equality and women's empowerment in environmental management and poverty alleviation policies and programs has been fully acknowledged in a wide range of global agreements and forums, including the articles and guidance of the three Rio Conventions that are directly relevant to the proposed pilot initiatives. Women and men each play important but differentiated roles in managing the natural environment manifested through their tasks and responsibilities in food production and provision, agriculture, fisheries and forestry management. The type of knowledge resource managers possess also varies by gender and other social factors. Consequently, different needs, priorities, and perspectives should be reflected in designing the relevant solutions under each of the pilot initiatives. In this context, in further preparing the proposals, the teams will use gender analysis as part of the socio-economic assessment to ensure that the intervention design incorporates and recognizes the differences between women's and men's labor, knowledge, needs, and priorities. Programs will track the GEF Gender Indicators that are identified at the corporate level, and also identify gender sensitive indicators and sex-disaggregated data at the project level where relevant.

14. The GEF-6 integrated approaches will use the experience and lessons accumulated through: (a) the implementation of larger programs[149] such as the Areas Beyond National Jurisdiction (ABNJ), Arctic Program, the Ridge to Reef Program, and others; (b) the operational experience of combining STAR allocations with incentive mechanisms, in particular drawing on the mechanisms being tested through the Sustainable Forest Management/Reducing Emissions from Deforestation and Forest Degradation (SFM/REDD+) mechanism; and (c) the lessons

[148] GEF-6 Strategic Positioning Paper

[149] Areas Beyond National Jurisdiction, Lead Agency FAO, with UNEP and World Bank implementing projects ; Arctic Program, Lead Agency UNEP, with EBRD, UNDP, World Bank implementing projects; Ridge to Reef Program, Lead Agency UNDP, with FAO and UNEP implementing projects.

learned from the growing portfolio of multi-focal area projects and programs. This experience has been serving well in the identification of the proposed interventions, and will be instrumental in guiding the implementation of the pilot Integrated Approaches and for the review and assessment of their effectiveness and impact. The pilots will not require the creation of additional funding modalities in the GEF since they will be operationally structured as programmatic approaches building on the lessons with Programmatic Approaches introduced in GEF-5. An improvement to overcome the operational complexity experienced by past programmatic approaches would consist in the lead agency for a pilot being expected to develop a limited set of key outcome indicators to track achievements. These indicators will replace the traditional tracking tools and offer a simplified framework to tracking multi-focal area results, and against which projects submitted under a single Integrated Approach will be reviewed for GEF eligibility. Once aggregated, funding for the pilot would only be tracked against this pilot-specific results framework.

15. Following existing models, the GEF-6 pilots will be funded through a combination of set-aside allocations from several thematic areas, reflecting their synergistic nature and the need to reinforce country ownership. The pilots will further provide complementarity to focal area strategies and completely adhere to MEA priorities. Two of the Integrated Approaches will be implemented through incentive mechanisms to national STAR allocations, while the remaining pilot will be funded through combinations of thematic set-asides, as follows:

| **Integrated Approaches** | **Biodiversity** | **Climate Change Mitigation** | **International Waters** | **Land Degradation** | **SFM** | **Private Sector** | **Total for Pilots** |
|---|---|---|---|---|---|---|---|
| Commodities | $35 million | | | | $10 million | | $45 million |
| Sustainable Cities* | | $40 million | | | $10 million | $5 million | $55 million |
| Food Security* | $10 million | $10 million | | $40 million | | | $60 million |
| Total | $45 million | $50 million | | $40 million | $20 million | $5 million | $160 million |

* Country STAR allocation matching required for the release of Integrated Approach resources.

16. The Sustainable Cities and Food Security pilots will operate as incentives to national allocations coming from the STAR at a 1:1 ratio, while reserving $10 million in each pilot for components intended to support regional cooperation, sharing of experiences, south-south cooperation, integration across country boundaries, monitoring, evaluation, evidence-based design, and implementation and lessons-learned. This funding structure will ensure full country ownership while preserving the pilot nature of the integrated approaches and their ultimate objectives to bring about transformative change.

17. The 1:1 incentive ratio balances three primary objectives: (a) keeping the overall funding for the pilots at a level that will not overburden national STAR allocations, (b) securing a high enough level of resources deemed necessary to deliver on the goals of each of the pilots, and (c) still providing a sufficiently large incentive for countries to unite around a set of common deliverables sought by the Integrated Approaches.

18. The pilot on Commodity Supply Chains will be funded fully from the set aside allocations described above. This funding structure is justified given that the primary objective of this integrated approach pilot is to engage with non-traditional actors for the GEF, such as the private sector.

**Complementarity with Existing Focal Area Strategies**

19. Complementing the individual strategies developed to orient and prioritize GEF-6 investments in biodiversity, chemicals and mercury, climate change mitigation, international waters, land degradation and sustainable forest management, the pilot Integrated Approaches offers the possibility of additional targeted investments directed at reversing disquieting trends in the global environment that directly affect the goals and targets of the international environmental conventions, and to enable GEF to address better the multitude of themes that defines its mandate now and into the future.

20. The implementation of the pilots will continue the GEF tradition of taking risks and experimenting with new tools and frameworks arising from science and practice, generating indispensable lessons for the positioning of GEF, as well as for the implementation of the GEF-6 programming strategy and beyond. For this reason, it is important that the full set of proposed pilots are implemented during the next replenishment cycle so as to generate enough evaluative evidence to determine the effectiveness and impact of Integrated Approaches to the global environment.

## SUSTAINABLE CITIES - HARNESSING LOCAL ACTION FOR GLOBAL COMMONS - AN INTEGRATED APPROACH

### Rationale for Identifying the Theme

1. Cities face unique challenges and opportunities in tackling global environmental concerns. Cities are a critical entry point to address drivers of three mega-trends of global environmental degradation: urbanization, the rising middle class, and population growth. The role of cities for sustainable development cannot be overstated.

2. More than half of the world's population lives in cities. Almost all of the global population growth in the next two decades is expected to be in cities in the developing world. In particular, urbanization is happening at a historically unprecedented speed and scale in China, whose urban population may reach one billion, one in eight people in the world, by 2030.[150]

3. Cities consume over two-thirds of global energy supply, and are responsible for 70% of carbon dioxide ($CO_2$) emissions.[151] A significant share of growth in the per capita greenhouse gas emissions (GHG) in developing countries is attributed to urban areas, through energy use, with emissions from transport, households, and industries.

4. Higher population density and concentrated emissions in cities pose risks to public health and safety within and beyond the city boundaries. Air pollution contributes to half a million deaths a year in Asia, with 67% of cities failing to meet a key air quality standard for particulate matter.[152] Transboundary air and water pollution is increasingly observed around the globe. Additional concerns include chemical safety, handling and disposal of solvents, pesticide application for public health and vector control, and urban run-off.

5. Cities are also uniquely vulnerable to climate change. Fourteen of the world's 19 largest cities are located in port areas. Around 360 million people reside in urban coastal areas that are less than ten meters above the sea level. With sea level rise and increased storm activity, these areas are likely to face coastal flooding, physical damage to infrastructure, and other impacts such as compromised water and food security.

6. Meeting the production and consumption needs of the urban population for food, energy, water, and infrastructure also puts a significant strain on the rural and urban ecosystems. The physical expansion of urban areas can directly compromise the provision of ecosystem services vital to the cities, for example those provided by forests—clean air, providing water catchment integrity, helping to control storm water and conserving energy. Policies need to consider the linkages between cities and the surrounding rural areas. Urban design and services—including

[150] World Bank (2012). Sustainable Low-Carbon City Development in China. The World Bank. Washington, D.C., USA; Concept Note; China-World Bank Flagship Program: Making Urbanization Efficient, Inclusive, and Sustainable; McKinsey (2009). Preparing for China's Urban Billion. McKinsey Global Institute.
[151] C40 Cities (2012). CDP Cities 2012 Global Report.https://www.cdproject.net/cdpresults/cdp-cities-2012-global-report.pdf
[152] Asia Development Bank (2012). Key Indicators for Asia and the Pacific 2012. http://www.adb.org/sites/default/files/pub/2012/ki2012-special-chapter.pdf

water, sanitation, transport and markets—need to address gender and promote equal opportunities to achieve greater social, economic, and environment benefits.

7. Cities can offer effective entry points to counter global environmental degradation, complementing national and global level actions:

(a) Cities control policies and vital systems related to global environmental conditions, such as system-level management of infrastructure development, natural resource management, and setting environmental standards. The majority of cities have direct control over the transit system, roads, markets, waste management, water supply, wastewater treatment, building codes, and others. City leaders play an essential role in the multiple levels of governance of urban management, necessitating their direct engagement. They can be quicker in decision making to respond to pressure and requests from the local constituency.

(b) The projected urban development needs in the next 20 years present a window of opportunity for cities to manage their development sustainably, starting with the planning and design phase. There is an opportunity to facilitate upstream planning to demonstrate models that avoid locking in conventional urban forms, and to help demonstrate innovative options for retrofitting to make existing cities greener and more resilient, enhancing urban-rural linkages.

(c) The concentration of people and institutions enable economies of scale in providing green infrastructure and services. Urban productivity also tends to be higher, enabling more efficient output with fewer resources.[153] Cities are incubators of innovation and present unique opportunities to generate and disseminate technological, social, and cultural ideas.

(d) Cities are a natural place for integrated solutions for ecosystem management. For instance, there are strong environmental, social, and economic cases to be made for the development and management of forests as well as urban and peri-urban agriculture as elements of green infrastructure in and around cities, with benefits for climate change mitigation and adaptation, resilience, diminishing air and water pollution, and others.

8. The Sustainable Cities Integrated Approach recognizes the significant roles of cities for sustainable development as well as risks of not acting now, and aims to help cities address the drivers of mega-trends of global environmental degradation in an integrated manner.

**Expected Results**

9. Building on GEF's on-going urban management projects from various focal areas, this Integrated Approach will strengthen local action while promoting coordinated national and regional-global partnerships to jointly address barriers to sustainable urban and territorial development.

[153] In Asia, urban productivity is more than five times higher than in rural areas (ADB, 2012. Ibid.)

10. The Integrated Approach will engage with partners to develop conceptual models of sustainable cities with harmonized performance indicators, including global environmental benefits. The models will provide policy and governance support to facilitate integrated urban design, planning (including production sector), and management that leads to sustainable, resilient development and sound ecosystem management, which will help demonstrate a common vision of sustainable cities.

11. This Integrated Approach will also support a select number of pilot demonstrations of high-impact, integrated sustainable cities initiatives, as an incentive to country allocations. The demonstrations may include: performance-based urban management pilot projects, climate smart urban and peri-urban agriculture and forestry, and sound management of chemicals and cleanup of the production supply chain for safer and healthier cities, tracking of resource use and consumption, and other elements. These demonstrations will establish analytics to monitor a harmonized set of global environmental and local indicators, and technical assistance to raise capacity for sustainable city program design and implementation. Innovative financial mechanisms and economic models to support sustainable cities may be considered for support as part of the piloting initiative.

12. The Integrated Approach will also build partnerships to facilitate dissemination of lessons learned and replication, including facilitation of knowledge management, engagement with partner institutions for replication, and sharing of best practices through, inter-alia, knowledge-sharing mechanisms. Such knowledge sharing practices would include highlighting those where gender mainstreaming and women's empowerment have shown clear benefits.

13. The key expected results and outcomes are:

(a) In five to ten years, the participating pilot cities are recognized as leading examples of sustainable urban and territorial management, with clear and quantified global environmental improvements that are scalable and integrated into national level sustainable development strategies. They also demonstrate measurable local benefits, and are integrated into knowledge-sharing mechanisms for further promoting transfer and scaling up.

(b) Cities adopt performance frameworks for generating and monitoring environmental and socio-economic benefits.[154] The performance frameworks are part of an overarching integrated platform, with models of sustainable cities at different stages of development that uses a common set of indicators that is adopted and/or adapted in different partner institutions.

(c) Urban government leaders and officials in developing countries have the expertise and policy means to address global environmental concerns in an integrated manner, with local action.

[154] Example of such benefits may include GHG emission reduction from urban sources established and achieved (e.g., percent of renewable energy sources, percent use of public transit, and others); maintained or improved flow of agro-ecosystem and forest services sustaining the livelihoods of local communities; improved governance of shared water bodies, including integrated management of surface and groundwater through regional institutions and frameworks for cooperation, and others.

(d) National governments create favorable policy environments to enable city governments to address global environmental concerns at the local level, across the urban-rural continuum, as an element of national strategies.

(e) Partner institutions adopt GEF-supported integrated urban development and management strategies that help meet commitments/objectives of multiple global conventions.

(f) The merits of addressing drivers are recognized as successful approaches among different Conventions, leading to more integrated initiatives at the country/regional levels.

14. Ultimately, the success of this Integrated Approach depends on national and local leaders and stakeholders having a shared vision for sustainable cities, and taking action to make this shared vision come true inspired by GEF supported models and mechanisms.

**Comparative Advantage of the Global Environment Facility**

15. While many cities-related initiatives, some with sustainability focus, are emerging with multilateral and bilateral support, current approaches to address urbanization as a driver of global environmental degradation are still fragmented. These initiatives, including those supported by the GEF Agencies, tend to focus on a handful of sectors. Most of them do not uniformly address and monitor the key global environmental concerns. Existing approaches to promote integration are limited in scale and scope. There is significant potential for GEF engagement so that the various initiatives incorporate global environmental benefits more systematically and consistently, with harmonized set of indicators and monitoring/reporting.

16. The ability of the GEF to mobilize financing to address concerns that cut across multiple sectors and focal areas is a unique advantage. Stakeholders, including national and urban leaders and institutions, are calling for stronger efforts by the GEF to address key drivers of environmental degradation in an integrated manner through city-focused action. In addition, the GEF, as a pioneer of innovation through grant financing, is well suited to support the testing and demonstration of models of integrated urban management, with a strong potential for impact per dollar invested. By ensuring that gender equality and women's empowerment are considered in demonstrated models, the GEF can leverage its advantage to greater benefit. The GEF grant funding in and of itself serves as an incentive mechanism to support promising innovative activities, helping to lower the risk to clients and other investors.

17. The GEF can play a key role partnering with relevant countries and cities as well as relevant GEF Agencies and bilateral institutions, building on the extensive experience in supporting urban area projects in various focal areas. The growing number of urban initiatives currently planned or implemented by GEF Agencies and bilateral institutions offers timely opportunities to catalyze action. The GEF will harness its partnerships to help establish an enabling environment for generating and channeling investments that contribute to global environmental benefits and associated resilience. The GEF will not directly invest in large scale infrastructure projects as this may be done through a multilateral development bank or bilateral loan packages as co-financing, or leveraged financing from countries or cities.

**Links to Multilateral Environmental Agreements**

18. Various Conventions for which the GEF services as the financial mechanism are increasingly recognizing the role of cities and urbanization both as drivers of global environment degradation and as key players in addressing Convention objectives, for instance:

(a) The United Nations Framework Convention on Climate Change (UNFCCC) Decision 1/CP. 16 recognized the need to engage subnational and local governments and numerous decisions identified a role for these subnational stakeholders and governments such as Decision 1/CP.11, Decision 1/CP. 16, and Decision 2/CP.17[155]. In Decision 1/CP.19 from 2013, Parties agreed to facilitate the exchange of experiences and best practices between cities and subnational authorities in identifying and implementing opportunities to mitigate GHG emission and adapt to the adverse impacts of climate change. Furthermore, the role of subnational governments to engage in the UNFCCC process is being discussed within the framework of the "Friends of the Cities," among interested parties and institutions.

(b) The Convention on Biological Diversity (CBD) Decision IX/28 articulated the need to involve cities in biodiversity strategies and action plans. A number of cities have initiated Local Biodiversity Strategic Action Plans in partnership with national governments, based on Decision X/22. In 2012, the CBD launched the "Cities and Biodiversity Outlook." The CBD also set up a Cities for Life Summit, in parallel to the official CBD-COP, and created the Global Partnership on Cities and Biodiversity.

(c) The United Nations Convention to Combat Desertification (UNCCD), within its COP10 Multi-year Work Plan 2012-2015, identifies migration as one of the important variables and hence considers cities strongly interlinked with what the Convention aims to achieve, through their potential role and impact on migration.

(d) Article 6 of the Stockholm Convention and article 11 of the Minamata Convention address the management of waste that contains persistent organic pollutants (POPs) or whose poor management leads to the production of such chemicals, in a situation where cities are the main stakeholders. Moreover, cities are major users and producers of chemicals and waste, and also have a key role in the management of a number of the new POPs relevant to cities.

(e) The Rio +20 process confirmed the importance of the subject of "sustainable cities and human settlements." For instance, in a recent survey, member states of the United Nations identified this subject as one of the top 15 priorities to be addressed in the discussion on the Sustainable Development Goals.[156]

19. The GEF can help develop and implement efforts in a more coordinated manner to enhance effectiveness and address common drivers that the individual Conventions seek to

[155] The decisions refer to dialogue on long-term cooperative action to address climate change (1/CP.11), in adaptation plans and strategies (1/CP. 16), and in Nationally Appropriate Mitigation Actions (NAMAs) (2/CP.17).

[156] http://www.un.org/ga/search/view_doc.asp?symbol=A/67/634&Lang=E

address. The GEF interventions will incorporate issues on gender equity and women's empowerment as promoted by all of the above Conventions. The results and lessons learned on generating global environmental benefits for individual Conventions will also be shared, to help inform Parties as they consider the role of cities and urbanization in the Convention context.

**Participation of Countries and Partners**

20. Local, national, and regional/global components are envisaged. The implementation of policy and technical measures for sustainable cities and city-regions will take place in a select number of locations. The rationale for participation will be articulated during the program preparation process. National level planning and enabling policy environments are crucial for individual city initiatives to have collective impacts, with a common set of outputs on the global environment. Engagement of local civil society organizations will be sought.

21. At the regional and global level, the Integrated Approach will seek to enhance coordination of ongoing and planned urban programs, to monitor and report on the direct and indirect global environmental benefits (as well as trade-offs), and to promote South-South and North-South cooperation, as appropriate. A robust knowledge sharing mechanism will be devised in order to maximize the information benefits generated through this effort and to share knowledge and lessons learned.

22. The engagement of the private sector will also be encouraged, since the private sector may supply and support urban services, provide innovative technologies and management practices, and implement programs to reduce environmental degradation and to promote sustainable natural resources management and agriculture.

**Resource Considerations**

23. The Sustainable Cities Integrated Approach will operate within an initial funding envelope of $55 million, to be drawn from Climate Change Mitigation ($40 million), Sustainable Forest Management ($10 million), and the Non-Grant Instrument Pilot ($5 million). Of this amount, $45 million will be made available as an incentive to country allocations at a 1 to 1 ratio, and $10 million will be directed to regional and/or global component. Additional funding from other sources, such as the Least Developed Countries Fund and Special Climate Change Fund, subject to availability and country-driven demand, may be used.

24. The initiatives funded by this Integrated Approach may be supported by and/or contribute the following focal areas: Biodiversity, Land Degradation, International Water, Sustainable Forest Management, Climate Change Mitigation, Climate Change Adaptation, and Chemicals and Waste.

25. The Sustainable Cities Integrated Approach will organize an initial consultation with participating countries, Agencies, GEF Secretariat and other relevant partners to identify a suitable implementation arrangement, including the identification of a lead Agency. A number of GEF Agencies, such as the World Bank, regional development banks, FAO, UNDP, and UNEP, have been active in implementing urban management initiatives and expressed an interest to engage. The Integrated Approach will form a team to help facilitate the program preparation process to articulate the local-national-global components and benefits, with interested and/or

relevant countries other partners and co-financiers, in coordination with the GEF Secretariat. The lead Agency is expected to submit the full proposal to the GEF council for deliberation.

26. The preparation process will engage with a wide set of interested partners, and help define critical gaps and barriers to a broader and more integrated approach. Coordination and collaboration will be sought with key institutions, such as ICLEI, C40, UN HABITAT and others. Such consultation seeks to define the best niche for the GEF funds to enable and scale up the work of others including stimulation of increased private sector engagement. The Sustainable Cities Integrated Approach also aims to foster synergy and collaboration among existing institutions and, to encourage broader uptake of integrated planning and common indicators. Preliminary discussions with stakeholders to help inform the development of the Integrated Approach have been held, including at the World Mayors' Summit on Climate Change (September 2013), CEO Innovation Partnership Forum with Mayors, organized with ICLEI (September 2013), Resilient Cities Conference (May/June 2013), among others. These discussions have so far highlighted strong support for GEF's engagement at the city level.

27. This Integrated Approach may be structured as programmatic approaches building on the lessons learned, and thus does not require the creation of additional funding modalities. Noting the importance of common indicators to track achievements of sustainable urban programs, the selection of indicators and assessment methodologies will be discussed among partners. These indicators will replace the traditional tracking tools and offer a simplified approach to tracking multi-focal area results and to assess GEF eligibility. A performance framework, with the common set of indicators will be part of an overarching integrated platform. The Integrated Approach funding will be tracked against the program specific results framework and not be tracked for partial results against GEF-6 funding programs which contribute resources to improve on earlier multi-focal project challenges. An evaluation of the Integrated Approach Pilots will be conducted and completed by the end of GEF-6

## TAKING DEFORESTATION OUT OF COMMODITY SUPPLY CHAINS - AN INTEGRATED APPROACH

### Rationale for the Selection of the Theme

1. Agriculture is identified as the driver of approximately 80% of deforestation worldwide[157,158]. Within the Amazon and South East Asia cattle ranching, soy and palm oil were identified as main drivers of post-1990 deforestation[159]. In addition to species and habitat loss, between 12-15%[160] of global greenhouse gas emissions is estimated to derive from deforestation. However agricultural commodities are a key element of economic growth in rural areas of emerging economies, accounting for 10% of developing countries' gross domestic product[161].

2. Increasing world population, economic growth, and changing diets are expected to cause a sharp increase in the demand for agricultural commodities. This will have implications for the environment that must be managed in order to maintain the natural capital upon which this projected growth will be developed. Agricultural commodity expansion often coincides with locations where governance and technical capacity may already be limited and outpaces clear analysis and careful planning without environmental, social, and food safety safeguards.

3. A window of opportunity exists during which changes to commodity production pathways can still be made before irreversibly damaging natural resources. Taking advantage of this opportunity depends on an integrated commodity approach that not only removes the barriers along single commodity sustainable supply chains, but also harnesses the potential synergy and multiplying effect of addressing key agricultural commodities in a combined approach.

4. The key to success is the level of inter-relatedness between the production, processing, and supply of key commodities. The same companies are often involved in their production and processing, and are often invested in by the same finance institutions. This means that improvement in sectors often depends on working with the same groups of actors. The current fragmented landscape of sustainable commodity initiatives makes it difficult for actors to focus efforts and affect change.

5. An integrated commodities approach is a means to leverage the growing public and private sector interest in promoting sustainable commodities through the use of common approaches and pooled investment. Such an approach can identify shared approaches and economies of scale that can bring about change within the various stages through entire supply chains, within producing countries, and at the global level. Long-term sustainability within commodities depends on being able to link long-term national sustainable development policy and programs for with day-to-day value chain management approaches.

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[157] Boucher, D. et al. (2011) The Root of the Problem: What's Driving Deforestation Today? *Union of Concerned Scientists*

[158] Kissinger, G. et al. (2012) *Drivers of Deforestation and Degradation: A Synthesis Report for REDD+ Policy-Makers.* Exeme Consulting.

[159] Hosonuma, N et al. (2012) An assessment of deforestation and forest degradation drivers in developing countries *Environmental Research Letters* 7 044009.

[160] United Nations Environment Programme (2011) *Keeping Track of Our Changing Environment*.

[161] From World Bank online databank *http://data.worldbank.org*

## Expected Results

6. The Commodities Integrated Approach seeks to turn the sustainable production of key commodities from niche and specialized operations to the norm in each commodity sector. Success for this integrated approach will be the increase in supply of key commodities through means which do not lead to deforestation. Success will be identified throughout the commodity supply chains when each chain link produces, buys, or sells sustainable, deforestation-free products as a major part of their business model and that sustainable production, processing, and supply of these commodities is rewarded throughout the supply chain.

7. The complexity, depth, and length of commodity value chains and the additional intricacies of actors involved in multiple commodities provide a wide range of potential intervention opportunities. The GEF will support the use of a wide range of tools within four main intervention approaches to engage global and national financial institutions, stimulate market demand, strengthen the enabling environment, and support the uptake of sustainable and biodiversity-friendly practices by producers. The following opportunities offer the greatest potential:

(a) Enhance the understanding of decision-makers within the public and private sectors of the role of commodities in deforestation, and the consequences of current and predicted increased future production;

(b) Strengthen the enabling environment for sustainable commodities by improving land-use policy, planning and governance;

(c) Support the uptake of sustainable commodity production practices by producers by strengthening capacity of producers to achieve certification in commodities production; and,

(d) Enhance investment in sustainable commodities by focusing finance flows to sustainable commodity management practices.

8. The pilot integrated approach will invest in specific stages of the commodity value chains in the regions with rapid expansion of key commodities. Interventions will be prioritized using criteria such as their potential to generate significant global environmental benefits. The pilot is expected to support the achievement of objectives within the GEF focal areas of biodiversity, climate change, and chemicals as well as support the SFM and private sector strategies.

## Comparative Advantage of the Global Environment Facility

9. Many initiatives already deal with commodity production. Most of these, however, are limited in scope to individual commodities, individual supply chains, individual countries or specific supply chain links. This fragmented approach has not resulted in comprehensive change within entire commodity sectors and has been unable to reduce the rate of deforestation from commodity expansion. A new approach is necessary, one that capitalizes on these individual efforts while addressing key roadblocks along value chains and within commodity sectors.

10. The GEF's mandate to generate global environmental benefits, the breadth of experience from the agencies it draws upon, and the ability to function across sectors puts it in a unique position to stimulate real change within the most important commodity sectors. The GEF

partnership already has considerable experience in the support of market-based approaches within coffee, beef, timber and non-timber forest products and the development of certification processes, as well as extensive support of payment for ecosystem service schemes. The GEF partnership has the ability not only to convene across and within commodities but also has the technical capacity to address specific barriers to progress and the experience to formulate a cohesive approach that is unachievable through existing single project or program modalities.

11. The integrated commodities approach marks a paradigm shift for the GEF's operational modalities. While governments play the principal role in setting policy and leading governance for commodities, the majority of activities on the ground (e.g. forest conversion, commodity husbandry, processing and financial services) are almost exclusively carried out by the private sector – ranging from smallholders to multinational companies. This approach expands GEF's traditional national government-focused model and develops one which reflects the range of actors involved in key commodities. Adopting this approach widens the GEF's sphere of influence and allows it to engage, support, and partner with a breadth and depth of stakeholder groups far in excess of what has so far been possible.

12. This approach recognizes that realigning commodities along sustainable development pathways cannot focus exclusively within the countries that produce the raw materials. The globalized nature of commodities means that only through engagement with the correct actors and stages – which may well be located in other parts of the world – will the true potential of a market based approach be realized. An integrated approach identifies the most effective and appropriate entry points for support, whether supply or demand side, public or private, policy or technical, capitalizing on value chain structures and corresponding sustainability pressure points along and between the chains.

**Participation of Countries and Partners**

13. Although many agricultural commodities are grown across the world, a small group is of particular importance for the GEF due to magnitude and significance of their impact. This is related to the source of the commodity and the rate of expansion of the area dedicated to it. Additionally, commoditization of some products has resulted in supply bases and chains in which relatively few actors control significant portions of world supply. Where these actors are amenable to improving value chain control and addressing value chain impacts they have potential to influence a far larger portion of the commodity market. Hence, although many agricultural commodities are undergoing expansion, the GEF will target only those exhibiting high environmental impact and the potential for high return on GEF investments in the form of sustained global environment benefits.

14. Within this context expansion of key commodities is concentrated in the forests of Amazonia, Central and West Africa, and South East Asia where production must be reconciled with other societal objectives such as forest conservation, maintenance of ecosystem services, and climate regulation. The pilot will include GEF-eligible countries that share the desire to address the impacts of commodity expansion, identify the loci and implications of future commodity expansion and develop the foundation for strategic interventions to ensure growth within a sustainable development pathway. In addition countries that do not participate formally may also benefit through participation in regional elements of the pilot that complement existing

and planned investments that are relevant to the goal of the integrated approach. These relationships will be clarified during further development of the pilot.

15. The integrated approach will seek to support actions within commodity value chains through interventions that stimulate improved practice and avoid deforestation with four different sets of actors committed to this overall goal:

(a) National governments – through developing the enabling conditions for sustainable practices;

(b) Producers – at a range of scales including small scale producers and local communities particularly women, indigenous peoples and other often disadvantaged groups;

(c) Buyers – including traders, and women in the informal sector, processors in order to link brands and retailers with national programs; and

(d) Financial Institutions – investing in commodity value chains at national, regional, and global levels.

16. As the pilot is cross-sectoral and multi-national a range of skills and experience required will be required to be drawn from across and beyond the GEF partnership. The pilot will serve to both focus efforts and optimize deployment of GEF resources in the field of sustainable commodities production. An initial consultation with the participation of countries, agencies, GEF Secretariat and other relevant partners such as the commodity roundtables, certification schemes and other responsible procurement initiatives will identify the most appropriate implementation arrangement, including the identification of a lead agency for the pilot. Once the relevant agencies are identified, the pilot will establish an inter-agency team that in coordination with the GEF Secretariat, will complete the preparation process with a wide range of interested and/or relevant countries, value chain partners and co-financiers.

17. The final proposal would be brought by the lead agency to the GEF council for approval according to usual procedures. As one of the key objectives of the integrated approach is to catalyze wider action within the commodities sector, the preparation process would be used to engage with a wider set of value chain partners, and help define critical gaps and barriers to a broader and more integrated approach. Alliances will also be fostered and built between the GEF pilot integrated approach and key actors and initiatives committed to removing deforestation from commodity production. This includes a wide range of value chain actors as well as CSOs and interested donors and initiatives including the Tropical Forest Alliance 2020, players within the UN 10 Year Framework for Sustainable Production and Consumption, the commodity roundtables, certification schemes, forest carbon and REDD+ initiatives. Discussion is already underway with a range of potential partners and complementary initiatives with the aim of fostering synergy and collaboration.

**Links to Multilateral Environmental Agreements**

18. As a finance mechanism to the UNFCCC, UNCBD, and UNCCD, the GEF plays an important role in supporting global forest management and conservation. All three conventions contain key decisions or action plans on mainstreaming gender. The GEF also contributes to the achievement of the UNFF's Global Objectives on Forests. The pilot will be able to address the common goal of reducing and avoiding the loss of forest resources, and will support the following objectives:

(a) **Convention on Biological Diversity**: Decision X/2, Aichi Biodiversity Targets: i) Target 5. By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced; ii) Target 7 By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

(b) **UN Framework Convention on Climate Change**: Decision 1/CP.16, REDD-plus elements: i) Reducing emissions from deforestation; ii) Conservation of forest carbon stocks.

(c) **UN Convention to Combat Desertification**: Decision 4/COP.8, Desertification, Land Degradation and Drought and Sustainable Forest Management: Reinforce SFM as a means of preventing soil erosion and flooding, thus increasing the size of atmospheric carbon sinks and conserving ecosystems and biodiversity.

(d) **UN Forum on Forests**: Global Objectives on Forests: i) Reverse the loss of forest cover worldwide through SFM, including protection, restoration, afforestation and reforestation, and increase efforts to prevent forest degradation; ii) Enhance forest-based economic, social and environmental benefits, including by improving the livelihoods of forest-dependent people; iii) Increase significantly the area of sustainably managed forests, including protected forests, and increase the proportion of forest products derived from sustainably managed forests; iv) Mobilize significantly-increased new and additional financial resources from all sources for the implementation of SFM.

**Resource Considerations**

19. The pilot integrated approach will operate within a funding envelope of $45 million drawn from BD $35 million and SFM $10 million

**SUSTAINABILITY AND RESILIENCE FOR FOOD SECURITY IN SUB-SAHARAN AFRICA - AN INTEGRATED APPROACH**

## Rationale for the Selection of the Theme

1. The planet's population will likely exceed 9 billion by 2050, with up to 2 billion projected for Sub-Saharan Africa alone. This burgeoning population will require an estimated 50% increase in global food production, increasing pressure on already fragile and stressed lands, adding millions of hectares of newly cultivated lands leading to deforestation and loss of biodiversity, with the associated increase in the use of chemical inputs also causing pollution of aquatic systems.

2. In sub-Saharan Africa, governments and development partners are stepping up efforts to increase food production, focusing mainly on smallholder farmers' access to improved seeds, fertilizers, and markets. Yet there are no comparative efforts to integrate environmental priorities, including the growing risks associated with climate change, which will undermine the continent's fragile ecologies with consequences for the long-term sustainability of food security investments; these actions will have major long-term implications for livelihoods of the continent's poor and vulnerable, especially women.

3. The proposed pilot on Sustainability and Resilience for Food Security in Sub-Saharan Africa seeks to leverage existing investments in smallholder agriculture to safeguard ecosystem services in the production systems. The proposal springs from the recognition that investing in natural capital is crucial for long-term sustainability and resilience of food production systems. Such investments will enable developing African nations to achieve long-term food security based largely on smallholder agriculture, and with global environment benefits. This will directly support the Comprehensive African Agricultural Development Program (CAADP) of the Africa Union, which includes pillars on food security and land and water management. It will also link directly to the Environment Initiative Action Plan of the Africa Union, and based on specific priorities of countries for implementing the plan.

4. The proposed pilot will be implemented in targeted agro-ecologies in the most food insecure dryland regions on the continent, potentially covering an estimated 10 million hectares and involving 2-3 million households over 5-10 years.[162] The GEF will specifically invest in best practices and policy options for improved management of smallholder agriculture, which accounts for more than 70% of agricultural production in sub-Saharan Africa. The focus will be on production systems of major staple food crops such as maize, sorghum, millet, rice, and cassava. GEF resources will be invested through four main components: soil and water conservation; diversification of production systems; integrated natural resource management in agro-pastoral systems; and supportive policies and institutional frameworks for transformational change toward food security in Africa. Because women are the large majority of food producers and processors and are more likely to be subsistence farmers, this Approach will specifically emphasize women's empowerment and participation at all levels.

[162] The targets are indicative pending detailed analysis that will inform further design of the Program.

5. The pilot will be anchored in the Land Degradation Focal Area strategy (LD1), with direct contributions to the Biodiversity (BD3 and BD4) and Climate Change Mitigation (CCM-2) Focal Area strategies.[163] GEF financing will lead to measurable global environment benefits (reduction of GHG emissions, sustainable use and conservation of biodiversity, and improved soil health), promote climate-smart smallholder systems, and increase resilience of food value chains. Hence the investments will directly contribute to implementation of relevant conventions for which the GEF serves as a financial mechanism – CBD, UNCCD, and UNFCCC.

**Expected Results**

6. The contribution of the GEF to food security through the proposed pilot will be the systematic integration of environmental priorities into agriculture and food value chains in sub-Saharan Africa. The focus is on fostering sustainability and resilience in production and post-production, and markets for smallholder farmers, who account for more than 70% of agricultural production in the region. The Pilot will target sub-regions with areas prone to environmental crisis leading to food insecurity; that have potential for leverage based on having a CAADP strategy in place (or under development), and having secured financial flows for its implementation; that are ripe for scaling-up based on evidence; with some success to build on; and with evidence of public sector engagement demonstrating ownership and sustainability. Based on these criteria, the proposed pilot will focus on the following geographies:

(a) Sahel – Focus on the Guinea-Savanna dominated by maize-mixed and agro-pastoral systems

(b) Horn of Africa – With an estimated 70 million people, including pastoralists living in areas prone to extreme food shortages

(c) Eastern Africa Highlands – Mainly areas dominated by mixed and perennial farming systems, with high population densities

(d) Southern Africa – Focusing on the crop-livestock systems in the sub-humid zone, with maize as the dominant food crop

7. With GEF financing, countries in these target geographies will address the need to integrate environmental priorities through interventions for sustainability and resilience of production systems. All interventions will take into account the differences in needs and practices of women farmers, ensuring the full participation of women by making gender considerations integral in project design and implementation. Given women's important role in food production, the success of this Integrated Approach depends on the inclusion and empowerment of women throughout. The GEF investments will focus on the following four components:

[163] LD1, "Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods"; BD3, "Reduce threats to globally important biodiversity", specifically Program 7 (Securing Agriculture's Future: Sustainable use of Plant and Animal Genetic Resources) ; BD4, "Mainstream biodiversity conservation and sustainable use into production landscapes and seascapes", specifically Program 9 (Managing the Human-Biodiversity Interface); CCM-2, "Demonstrate systematic impacts of mitigation options, specifically Program 4 (Promote conservation and enhancement of carbon stocks in forest and other land uses, and support climate smart agriculture).

(a) **Soil health and water conservation** –Sustainability of crop and livestock production in these lands requires soil management options that enable farmers to balance the demand for increased food production and maintenance of soil ecosystem services. GEF financing will focus on scaling-up integrated soil fertility management, use of nitrogen-fixing trees on farms to improve soil fertility and reduce erosion, conservation agriculture (where sufficient evidence has accrued on cost-effectiveness), options for efficiently capturing and managing runoff, and watershed management to enhance availability of water for on-farm use. GEF resources will not be used for purchase of inorganic fertilizers. Expected outcomes for this component include increased household income from sustainable practices for soil and water conservation (disaggregated by gender), increased land area under sustainable soil and water conservation practices, and reduction in GHG emissions.

(b) **Diversification of production systems** – An important aspect of food security in Sub-Saharan Africa is the need for production systems to deliver options that meet the multiple needs of smallholder farm communities. GEF financing will focus on in situ conservation of traditional varieties, sustainable management and use of genetic resources and local practices, integration and management of high value tree species in production landscapes, sustainable use and management of trees on-farm for ecosystem goods and services (e.g. products for subsistence use and sale), efficient use of biomass for cooking and introduction of renewable energy alternatives, and sustainable use of wild forest foods and other products as safety net. GEF financing will not be linked to any practices involving use of genetically modified seeds. Expected outcomes include increased coverage of diversified smallholder production landscapes, increased household income from diversified production landscapes (disaggregated by gender), and increased use of diverse crop types/varieties and tree species on smallholder farms.

(c) **Integrated natural resource management in agro-pastoral systems** - Increased pressure from livestock grazing is a major driver of land and water degradation in the drylands of sub-Saharan Africa. Addressing the challenges requires large-scale measures that integrate livestock management needs with crop production. GEF financing will focus on options that reduce soil and water degradation, and greenhouse gas emissions through improved grazing management (e.g. use of fodder trees and protein rich crop residues), and improved policies for effective crop-livestock systems. The investments will lead to increased coverage of smallholder crop-livestock systems under sustainable management and integrating biodiversity considerations, increased household income from integrated management of smallholder crop-livestock systems (disaggregated by gender), and reduction or avoidance of GHG emissions.

(d) **Increasing resilience and stability** – Sustainability and resilience requires appropriate enabling conditions at local and national levels. In particular, there is need to influence resilience thinking in decision-making about food security, including adaptation to climate change. GEF will finance this cross-cutting component to accelerate the widespread application of sustainable and climate-resilient practices through: policy improvements and investment planning at the

national level; capacity development and knowledge management activities for implementing good practices, post-harvest storage facilities and coping strategies against climate change risks at multiple scales; and capacity, knowledge management and institutional frameworks for monitoring and quantifying environmental benefits at scale. As a result, the pilot will promote supportive policies and incentives for smallholder farmers to scale up best-bet and sustainable practices (including low GHG emission technologies and biodiversity considerations), national and sub-national policies and structures to support climate-resilient and low GHG practices, increased private sector investment in climate-resilient and low greenhouse gas emission food value-chains, and capacity and institutions for monitoring global environment benefits.

8. GEF will invest in each component according to the needs and priorities of countries in the targeted geographies. GEF resources will be incremental but linked in an integrated and coherent manner to foster progress toward achieving food security with global environment benefits, and overall financing for the Pilot will be accounted for by the four components, targeted geographies, and participating countries.

**Comparative Advantage of the Global Environment Facility**

9. Integrating environmental priorities into agricultural systems implies managing the ecosystem services that underpin food production, such as genetic resources and biomass, healthy soils, and hydrological flows. For over two decades, the GEF as financial mechanism for the global environment has invested in a wide range of projects demonstrating links between ecosystem services and food security.[164] These investments provide a solid foundation for GEF to influence transformational change in the agriculture sector through the proposed Pilot. Although GEF financing cannot address the full range of challenges for ensuring a food secure world, it can play a significant role in fostering the integration of environmental priorities at all levels. This includes catalytic effect in convening multilaterals and governments to create critical mass for taking sustainable agriculture to scale in the developing world.

10. By mobilizing diverse stakeholders and linking across scales, the synergistic and catalytic effects of GEF financing will also be greater than what can be achieved through the usual multi-focal area investments. An integrated approach toward tackling food security should conserve systemic agro-ecosystem components such as water and biodiversity, enhance nutrient cycling within the farms and the ecosystems within which they are located, integrate environmental priorities in food value chains, and provide for climate change mitigation and adaptation.

11. The Pilot provides a new approach through which GEF financing will directly focus on good practices and innovations in land use and agricultural management that meet demands for increased productivity and efficiency of food production systems and value chains. In accordance with its mandate, GEF financing will contribute measurable global environmental benefits by: a) sustainable use and conservation of biodiversity; b) increasing land area under sustainable practices; c) increasing carbon sequestration; and d) reducing greenhouse gas

[164] This is based on the following recent publication: GEF, 2013. Two Decades of Experience: Investing in Ecosystem Services and Adaptation for Food Security. Global Environment Facility, Washington DC

emissions (GHG). Because the pilot will target specific geographies during implementation, there is greater potential for economies of scale in achieving objectives of the Land Degradation, Biodiversity, and Climate Change focal areas.

**Links to Multilateral Environmental Agreements**

12. The proposed Pilot is a timely opportunity for the GEF to align with a major target for the post-2015 development agenda in Africa. Achieving food security is a priority for all developing countries, and world leaders at the United Nations Conference on Sustainable Development (UNCSD or "Rio+20") reiterated the desire to pursue food security in a sustainable and resilient manner. In addition, the global environmental benefits generated through GEF investments in the proposed Pilot will contribute directly to objectives of the UNCCD, CBD, and the UNFCCC. Specifically, the Pilot is aligned directly with the strategic plans and priorities of these conventions, which will ensure consistency in overall approach including modalities for quantifying and accounting for the environment benefits.

13. UN Convention on Combating Desertification – The UNCCD text explicitly mentions links between desertification, drought, and lack of food security. The Convention currently has a Ten-Year Strategy and Action Plan (2008 – 2018)[165] that aims to forge a global partnership to reverse and prevent desertification/land degradation and to mitigate the effects of drought. Four strategic objectives guide the actions of all UNCCD stakeholders and partners, all of which will be directly supported by the proposed Pilot through financing under the Land Degradation Focal Area.

14. Convention on Biological Diversity – The CBD recognizes the critical importance of conservation and sustainable use of biological diversity for agriculture and food security. The convention currently has a Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets covering the period 2011–2020.[166] The proposed Pilot will support five of the Aichi Targets that are of direct relevance to agriculture and food security (Targets 6, 7, 8, 13, and 18), which will enable countries to address them directly with Biodiversity Focal Area resources. During the implementation of the proposed Pilot, GEF will not support any activities that undermine or are in violation of the Cartagena Protocol on Biosafety.

15. UN Framework Convention on Climate Change – Globally 31% of the total greenhouse gas emissions could be attributed to land-use change and agriculture, and in sub-Saharan Africa they are the largest sources of GHG emissions. Most of the emissions in Africa from land use change are from deforestation for both permanent croplands and shifting cultivation. Furthermore, climate change effects such as changes in precipitation patterns, and decline in rainfall will affect the smallholder farmers most because of their reliance on rain-fed agriculture. The proposed pilot will directly contribute to climate change mitigation and adaptation, the main priorities of the Convention. It will also position countries to leverage LDCF/SCCF resources based on priorities identified in National Adaptation Programs.

[165] http://www.unccd.int/Lists/OfficialDocuments/cop8/16add1eng.pdf
[166] http://www.cbd.int/sp/targets/

**Participation of Countries and Potential Partners**

16. GEF's most important lever for the proposed Pilot is its role in catalyzing investments in management of natural capital to safeguard the global commons. This is important for addressing biophysical barriers that smallholder farmers face, including climate change and variability, which can exacerbate environmental degradation and erode potential gains from improved management. As a leading funder for the global environment and financial mechanism of major environmental conventions, the GEF will leverage actions by the wide range of donor agencies and organizations supporting agriculture and food security in sub-Saharan Africa. In addition to countries, the GEF Secretariat has consulted extensively with many of these agencies.

17. By virtue of their commitments under the CAADP and the Environment Initiative Action Plan of the Africa Union, and to obligations to implement the Conventions, national governments of countries initially targeted for the proposed Pilot will be crucial for influencing the change envisioned by GEF. Ownership and buy-in for the pilot by these countries will ensure that policy options for fostering sustainability and climate-resilience can be identified and prioritized. Several GEF agencies, including the African Development Bank, FAO, IFAD, UNDP, UNEP, and the World Bank are well placed to engage as partners in supporting countries and other partners harness GEF resources for implementation of the Pilot. Finally, many organizations active with this agenda in Africa, including the Fund for the Consultative Group on International Agricultural Research (CGIAR Fund), the Alliance for a Green Revolution in Africa (AGRA), among others, can also become collaborators in the pilot by introducing or strengthening environmental management priorities in their process of improving smallholder agriculture at multiple scales.

18. The potential for both input and output markets depends on a strong engagement by financial institutions and agro-dealers in the private sector. These actors can create investment opportunities for scaling-up best practices and climate resilient options. In addition, agribusiness Small and Medium Enterprises (SMEs) that seek to develop public-private partnerships (PPPs) will also create opportunities for smallholder farmers. The proposed Pilot will support the deeper integration of environment and climate resiliency into such initiatives.

19. Finally, the pilot will directly include smallholder farmers and farmer organizations to strengthen their role in promoting sustainable and resilient practices. Farmers' organizations will be particularly critical for scaling-up innovations to increase potential for transformative change in the targeted geographies. Emphasis will be placed on the need for recognizing and integrating the different role of women and men toward sustainability of expected outcomes and ensure that women farmers participate fully in all processes.

**Resource Considerations**

20. The proposed Pilot will evolve through a consultative process with targeted countries, to ensure consistency with national and regional priorities. The consultation will identify country-specific priorities for GEF incremental financing under the proposed pilot, and build on existing baseline investments by the countries and development partners. In addition, cross-cutting and regional priorities will be identified for additional GEF investment to foster integration and scale.

21. During the consultative process, countries, agencies, GEF Secretariat and other relevant partners will identify the most proper implementation arrangement, including the identification of a lead agency for the Pilot. Furthermore, an inter-agency team will be established in coordination with the GEF Secretariat to help complete the pilot preparation process with interested countries, other partners and co-financiers. The final proposal, including a detailed results-based management framework for the Pilot, with specific consideration on gender, would be brought by the lead agency to the GEF council for deliberation.

22. Financing modality for the Pilot builds on GEF experience with the Sustainable Forest Management/Reducing Emissions from Deforestation and Forest Degradation (SFM/REDD+) incentive mechanism, which has successfully promoted the emergence of projects and pilots that make use of the opportunities for addressing synergy between GEF thematic areas and promote joint convention implementation. The GEF grant will include set-aside funds drawn from the Land Degradation ($40 million), Biodiversity ($10 million) and Climate Change Mitigation ($10 million) focal areas. Up to $50 million of these funds will be used as an incentive for the target countries to invest their country allocations under the STAR in country-specific projects at a 1:1 ratio. The remaining set-aside funds will be used for cross-cutting and regional projects that will directly complement and support country investments.

23. GEF has a well-established track record of mobilizing significant co-finance for projects linked to agriculture and natural resources. Because of the commitment to agriculture and food security in sub-Saharan Africa by national governments and development partners, the Pilot will build on existing investments and catalyze additional resources in the targeted geographies. It is envisaged that bilateral agencies with ongoing and planned investments will mobilize $100 million and multi-lateral agencies (including the GEF Agencies) an additional $500 million in co-financing

# CORPORATE PROGRAMS

## CORPORATE PROGRAMS STRATEGY

### Introduction

1. Corporate programs are those activities undertaken by the GEF to support work in the focal areas as well as to ensure the coherence of the GEF mandate across its network of partners. Corporate activities are largely cross-cutting in nature and seek to address the needs of countries and civil society organizations to effectively develop their capacity that allow them to protect the global environment. For GEF-6, three corporate programs are proposed: (i) Country Relations (ii) Cross-Cutting Capacity Development (CCCD); and (iii) Small Grants Program (SGP).

2. The GEF-6 strategic approach to corporate programs will build further on the successes achieved in GEF-5 and will incorporate the results of the evaluations done for some programs. Overall, the rationale and strategic objectives of corporate programs will be aligned with both the GEF 2020 vision and the strategies of the GEF focal areas.

3. The GEF Secretariat will continue to work with the GEF Agencies and other stakeholders on these corporate programs and take the lead in CR. UNDP will continue to implement the SGP, while various GEF Agencies will assist countries in the design of CCCD projects, as in the previous replenishment periods. The descriptions of the proposed corporate programs are below.

## COUNTRY RELATIONS

### Background

4. The sixth replenishment period of the Global Environment Facility (GEF) from 2014 to 2018 coincides with a moment when most of the global environmental challenges addressed with the support of GEF funding are at a complex stage of urgency.

5. The GEF is a partnership institution and, as such, its success depends on the manner in which its member countries, GEF Agencies, the private sector, and civil society work together. This partnership is a complex arrangement that has many rules, procedures and regulations that are constantly evolving. No matter how simplified, these are not easy to understand and to follow. Therefore, the Secretariat has the responsibility to guide the partners and to maintain the consistency and integrity of the GEF core mission.

6. In this context, and consistent with the principle of country ownership, developing country participants need to enhance their understanding of these complexities. The Country Relations Strategy (CRS) will address this need so countries can fully benefit from the partnership and effectively use the resources available.

7. The GEF is the/a financial mechanism of the main Multilateral Environmental Agreements and is therefore the only common element that links them together thus allowing the partnership to explore and exploit synergies for greater impact. The CRS will continue to provide a setting for the different focal points to develop coordination among them and discuss issues of common interest.

8. The Country Relations Strategy for GEF-6 will build on the successes and lessons learned from its past activities. The design and content of the programs described below has been redeveloped based on experience and feedback from participants. Additionally, the CRS will work closely with all focal areas to ensure a cohesive message and integrated support for all countries. Finally, the Country Relations Strategy will be guided by discussions and outcomes of the GEF2020 strategy.

**Goal**

9. The goal of the Country Relations Strategy is to support countries by informing, assisting and empowering them so they can fully benefit from the partnership and effectively use the resources available, thus maintaining the consistency and integrity of the GEF core mission to protect the global environment.

**Objectives**

10. Following the description above, the Country relations Team will seek the following strategic objectives:

(a) **To facilitate countries' understanding and adoption of the new approaches of GEF-6**. The transformational change sought by the GEF over the coming years will require fundamentally different and new ways of doing business. The transition from GEF-3 to GEF-4 showed that radical change is resisted until it is understood and embraced. The way to achieve this desired change faster is to inform, explain and convince of the merit and need of such fundamental changes.

(b) **To empower countries to use GEF funds in the most cost-efficient and impactful manner to safeguard the global environment.** For countries to use the limited resources available through the GEF partnership, they have to understand the GEF strategies and how they can benefit from them. For this to happen, they need to learn how to work more cohesively on all the issues related to the GEF partnership: among government ministries, in the conventions, with agencies, with civil society, etc. This will lead to the realization of projects, programs and activities with greater impact that are validated and broadly supported.

(c) **To contribute to building greater recognition for the GEF in Participant Countries.** By virtue of being a partnership, the GEF seeks efficiency by building upon the strengths of the various partners. As such, the GEF has no individual presence on the ground and its efforts are often overlooked. The CRS programs provide the only institutional presence in the field.

(d) **To serve as the first point of entry or reference for all country focal points and other stakeholders on GEF issues.** The Country Relations team will continue to provide timely information and advice to countries on various rules, procedures and regulations relating to the GEF partnership.

## Programs

*GEF Workshops*

11. The GEF Secretariat, in consultation with countries and Agencies, will design and organize regional workshops to train participants on the GEF-6 business model. The workshops will also facilitate trans-boundary collaboration; discuss regional programming; address integrated approaches; and other issues based on thematic and geographic areas. These workshops will be one of the main vehicles to improve the knowledge management between the GEF and its partners. The workshops could also be used for south-south exchange of experiences and to build political and financial support.

12. Each year the agenda of the workshops will be different so as to address different topics that will lead to the achievement of the above mentioned objectives. Developed countries will be invited to participate so they can interact with developing countries on GEF issues.

*GEF National Dialogues*

13. National Dialogues will be used as a strategic tool for promoting the incorporation of the global environment into national thinking. A broad array of national and local level stakeholders, including line Ministries and civil society, will discuss and understand how protecting the global environment is essential to the national interest and how to reflect it in daily work. These dialogues will further engage key players in the country's public and private financial architecture, in a discussion on the possible ways to catalyse public/private financing for the environment.

14. For these purposes, a more standardized and fixed format for carrying out these dialogues will be designed by the GEF Secretariat, and adapted to host Country requirements, as necessary. National Dialogues will be available to all countries at the request of the OFP. Additionally, in close consultation with GEF technical teams, a number of countries where these dialogues can be particularly useful will be targeted.

*GEF National Portfolio Formulation Exercise (NPFE)*

15. This activity is to help GEF Operational Focal Points to engage main national stakeholders and line ministries, in the planning process for developing national priorities for GEF support. This approach strongly promotes national ownership and will result in a document that will guide programming of GEF resources (National Portfolio Formulation Document - NPFD). The NPFE will be optional, will not be a prerequisite for project funding and will build upon existing national development plans and strategies. GEF Operational Focal Points may request an NPFE as from January 2014. GEF technical teams will be actively involved, as necessary.

*GEF Introduction Seminars*

16. The aim of this activity is to train new GEF Agency staff, Convention Secretariat staff, and selected stakeholders. Introduction Seminars will reach out to other audiences that are critical for the GEF to succeed, particularly national line Ministries, media, as well as people from other organizations that are part of the current financial environmental architecture and the private sector, where possible. These seminars will take place once a year in Washington, D.C.

*GEF Constituency Meetings*

17. Constituency Meetings continue to be the main tool for the Council Members to engage their Constituency members in the decision making at the GEF Council. They are meant to discuss Council agendas, papers and draft decisions so that the Council Member and Alternate may better understand and represent constituency members' interests. These meetings, that are also an instrument to discuss constituency governance, will continue to be organized at the request of the Council Member. They are also a critical tool for the GEF country officers to maintain personal contact with OFPs/PFPs.

*Pre-Council Meeting for developing country constituencies*

18. An additional option will be available in GEF- 6 for the developing country Council / Alternate Members to meet the day before the Council Meeting to exchange views, positions and perspectives in relation to the Council documents and to receive clarification from Secretariat staff, as necessary.

*Relations with developed countries*

19. In GEF-6 the Country Relations team will engage more strategically with developed countries. The team will organize and coordinate visits for developed country officials to some of the recipient countries' GEF financed projects to understand how they incorporate the GEF core mission into their national strategies. These missions would be organized based on an initial survey on developed country/donor interest. The purpose of these missions is to familiarize them with the activities and concrete results on the ground, and for the recipient countries to share their lessons learned.

**CROSS-CUTTING CAPACITY DEVELOPMENT STRATEGY**

*Proposed Directions for the GEF-6 Replenishment Phase*

## Background

20. Countries require appropriate foundational capacity to undertake the necessary actions to achieve sustainable development and overcome global environmental challenges. The capacities needed to meet global environmental objectives are closely linked to the capacities to undertake priority actions at the national level. Building countries' capacities for safeguarding the global environment has always been and must remain a key concern for the GEF.

21. Cross-Cutting Capacity Development (CCCD) in the GEF context traditionally refers to the targeted support provided to countries to strengthen their capacities to meet their commitments under the Rio Conventions and other Multilateral Environment Agreements. This type of capacity development is focusing on addressing systemic crosscutting national environmental management issues in GEF recipient countries, and it's complementary to capacity development under individual Focal Area projects.

22. The GEF funded National Capacity Self Assessments (NCSA) projects in 153 countries most of which have been completed. A synthesis of the results and lessons learned of the NCSAs conducted in 2010 indicated that the top five capacity development needs were: public awareness and education; information management and sharing; policy, legislative, and regulatory framework; organizational mandates and structures; and economic and financial sustainability.

23. Based on the results of NCSAs, 23 Medium-Size Projects – called CB2 projects - were approved under GEF-4 to address national environmental capacity constraints. These projects primarily focused on developing capacities to improve environmental governance systems and on mainstreaming global environmental issues into national development agendas.

24. A comprehensive assessment of this CB2 Capacity Development portfolio has just been completed. The purpose was to analyze whether CCCD projects have been transformative and responsive to critical gaps in countries' capacity development needs. Evidence suggests that the portfolio of CB2 projects has been very relevant to address capacity gaps of GEF recipient countries identified in their NCSAs and is highly relevant for the implementation of MEAs.

25. Building on these experiences, the value added of the GEF CCCD resides in its ability to address capacity needs across multiple GEF focal areas and catalyze synergies among different sectors. The Cross-Cutting Capacity Development Strategy for GEF-6 is distinct from capacity development at the individual Focal Area level in that it will address those transversal issues that focal area projects alone do not address. Cross-cutting refers to the GEF's ability to establish synergies between the Rio conventions and other MEAs and the consequent possibility to work across sectors of the economy. During GEF 6 special emphasis will be placed on these projects bringing together the national and local stakeholders, in particular the Ministries of Finance, Agriculture, Industry, Energy, Planning, Budget, as appropriate, so that the issues referring to the global environment are understood as an essential part of national interest and are incorporated into the regular process of decision making.

26. Recognizing the different knowledge, needs, and priorities between women and men on environment and resource management, the capacity development activities will work closely with relevant partners and conduct appropriate gender analysis to identify relevant activities and mainstream gender throughout the projects.

**Goal**

27. To help countries meet and sustain global environmental outcomes by strengthening key capacities that address challenges and remove barriers common to the MEAs that the GEF serves and to mainstream the global environment into decision making.

## Objectives

28. The Cross-Cutting Capacity Development Strategy for GEF-6 (2014-2018) will facilitate the acquisition, exchange and use of knowledge, skills, good practices, behavior necessary to shape and influence national planning and budgeting processes and implementation in support of global environmental benefits by:

(a) ***Promoting country ownership*** and country-led programs to ensure that the GEF supports embedded environmental objectives at the core of national decision-making and the development planning;

(b) ***Fostering Innovation*** and replicable actions;

(c) ***Catalyzing*** synergies, burden-sharing and the scale-up of capacities to support on-going sustainable environmental management and growth.

(d) ***Promoting knowledge sharing and improved information management*** at all levels to enhance public awareness and promote a behavioral change;

(e) ***Ensuring consultations and involvement of public and other stakeholders*** in decision making from the earliest stages of planning;

(f) ***Promoting partnerships*** with different stakeholders and across different (development) sectors; and

(g) Strengthen environmental governance, including improving political and institutional arrangements and fostering coordination between different sectors of government and the environmental sector

## Programs

29. The main features of the CCCD strategy in GEF-6 is that projects be transformative from a systemic perspective and pilot innovative approaches to realizing and sustaining global environmental outcomes.

30. Thus, in addition to mainstreaming of MEAs into the national and sub-national policy, legal and planning agenda, it is proposed that the strategy emphasizes integration of environmental sustainability across key development sectors, and across various actors including government, civil society and the private sector.

(a) **To integrate global environmental needs into management information systems.**
This objective focuses on strengthening cross-sectoral, national and regional knowledge management systems that are directly relevant to meeting global environmental priorities. Existing institutional networks and information centers will be strengthened, both nationally and regionally, so as to reinforce an integrated approach to information analysis and its dissemination to support improved decision- and policy making, monitoring and evaluation.

(b) **To strengthen consultative and management structures and mechanisms**
This objective focuses on filling critical decision- and policy-making gaps. Whereas objective 1 focuses on the creation, coordination and dissemination of

new and improved information, this objective focuses on how this information is used. Broader non-state stakeholder engagement would be built into the key consultative mechanisms that lead to policy-decisions, reinforced by related consultative processes from the local (e.g., private sector round-tables and local community and village meetings) to the national (open-ended technical committees in parliamentary sessions).

(c) **To integrate Multilateral Environmental Agreements' provisions within national policy, legislative, and regulatory frameworks.**
This objective will be targeted to a set of mainstreaming exercises. Specifically, projects would support a more systematic integration of the global environmental priorities called for in the articles of the three Rio Conventions and decisions of their respective Conference of the Parties and other MEAs. Vertical integration would be piloted to demonstrate the need for monitoring and enforcing of new and improved policies, legislation, and regulation. This type of cross-cutting capacity development project could build upon the outcomes delivered under objectives 1 and/or 2.

In addition, this objective aims at developing a greater linkage between the GEF crosscutting capacity development (CCCD) strategy and the capacity development strategies of MEAs to bring synergies and a better coordinated approach at the country level for developing needed capacities.

(d) **To pilot innovative economic and financial tools** for Convention implementation. Under this objective, projects would pilot environmental fiscal reform within a broader program of fiscal reforms to improve the flow of resources to finance activities under the MEAs, as well as to create stronger financial disincentives for degradation of the global environment under the Rio Conventions. In concrete terms, this would mean the restructuring of processes for the collection of environmental taxes, fees and fines, as well as a more transparent and streamlined process of resource allocation and distribution between the local, regional, and central government authorities.

(e) **Updating of NCSAs**
Countries will be supported to update their NCSAs and, as appropriate, expand them to include other MEAs for which the GEF serves as a financial mechanism. Those countries that have assessed the capacity development needs across the set of MEAs whose implementation is being financed by the GEF would be eligible to design a CCCD project that delivers global environmental outcomes under that set of MEAs.

## CCCD Table 1 - Examples of CCCD Activities

| Programmatic Objectives: | Program Activities | Performance Activities |
|---|---|---|
| **Integrating global environmental needs into management information systems and monitoring** | • Carry out (or update) an in-depth analysis of the current management information systems (MIS) related to the Rio Conventions and other MEAs employed by line ministries and their agencies<br>• Negotiate an agreement among all key line ministries and agencies on a realignment of their MIS mandates to fill data gaps and reduce unnecessary duplication<br>• Provide training on the use of targeted advanced data collection methodologies<br>• Support monitoring systems to track progress in convention implementation | • Preparation of draft background analyses by national experts are peer reviewed by representatives of all key stakeholders<br>• Draft policy and program recommendations are prepared collaboratively among representatives of all stakeholders<br>• Carry out public dialogues of key issues with targeted stakeholder groups<br>• Conduct surveys to asses baseline and evolving environmental attitudes, values and behavior (N>500)<br>• Actively engage potential project champions<br>• Pilot proposed recommendations and/or reforms to a targeted sector or region<br>• Negotiate strengthened partnership agreements with key national and international organizations |
| **Strengthening consultative and management structures and mechanisms** | • Undertake (or update) an in-depth evaluation of the current domestic decision-making processes related to the Rio Conventions and other MEAs<br>• Negotiate an agreement among ministries and non-state stakeholders on the best practicable consultative process for improved decision-making on the Rio Conventions and other MEAs<br>• Provide training to decision-makers on the critical linkages between the objectives of the Rio Conventions and other MEAs and sectoral development priorities | |
| **Integrating MEAs provisions within national policy, legislative, and regulatory frameworks** | • Undertake (or update) an in-depth analysis of the country's environment and development policy framework<br>• Develop an analytical framework for the in-depth analysis of sectoral policies, plans, programs and associate legislative and regulatory instruments<br>• Pilot the negotiated realignment of a selected set of sectoral policies with the provisions of the Rio Convention and other MEAs | |
| **Piloting innovative economic and financial tools for Convention implementation** | • Undertake a detailed study on the applicability of innovative econometric indicators for the valuation of natural resources<br>• Undertake a detailed study on potentially applicable best practices on environmental fiscal reforms<br>• Test the applicability of targeted innovative tools for the review of a proposed development project. | |

| | | |
|---|---|---|
| | | • Facilitate active roles for partner stakeholders to carry out project activities and promote project objectives |
| **Updating of NCSAs** | • Conduct a consultative process to update the capacity needs to implement the Rio Conventions and the country's commitments under other MEAs | • Preparation of the updated NCSA involving different stakeholders and sectors |

## GEF SMALL GRANTS PROGRAMME STRATEGIC DIRECTIONS FOR GEF6

### Background

31. The GEF Small Grants Programme (SGP) has been designed to empower poor and vulnerable communities, including indigenous peoples and women, so that they become direct and active actors in environment and sustainable development work. The active participation of poor and vulnerable sectors is critical in that their increasing population make them a major driver of environmental change.[167] Poverty and social exclusion impact directly on the global environment because it leads these people to engage in highly destructive forms of resource exploitation.

32. The way that SGP that has contributed to the good management and defense of the global environment is through local empowerment and good governance objectives. For example, agreement by governments for a highly socially-inclusive approach is one of the first transformative outcomes of the programme. The 2007 Joint Evaluation of the SGP concluded that the programme has significantly higher sustainability than MSPs and FSPs and that it "has contributed to numerous institutional reforms and policy changes in the recipient countries to address global environmental issues".

33. GEF SGP projects have been "incubators" in the design of MSPs and FSPs and of replication by other non-GEF projects. At the global level, lessons learned have informed global environmental governance discussions and debate. Over time, a critical mass of coverage leads to sizeable impact such as in the effective management of over 3 million hectares of protected areas and buffer zones in UNESCO natural World Heritage Sites. Support to global CSO networks such as that of the Indigenous and Community Conserved Areas and Territories (ICCA) Network have strengthened the conservation of 13.66 million hectares of critical ecosystems and the recognition of the value of ICCAs by the Convention on Biological Diversity in meeting its global targets. Successful community-based adaptation (CBA) work in Namibia and the network of micro-hydro projects in Dominican Republic have led to national policies that further support these initiatives. In a 2013 survey of SGP Country Programmes, about 70% reported that activities to expand the impact of projects beyond the community have been initiated with 50% citing influence on national or regional policy-making. SGP work to promote

[167] It is estimated that 1.3 billion people live in extreme poverty, mostly in South Asia and Sub-Saharan Africa. If social exclusion is also factored in, the proportion of the global population at risk increases to 2.8 billion, spread across all developing regions. (Chen Shaohua and Martin Ravallion (2012) 'More Relatively Poor People in a Less Absolutely-Poor World' Policy Research Working Paper 6114, World Bank).

socially inclusive development particularly on gender equality and women's empowerment has also expanded over the years. In SGP OP4 and first half of OP5, 46% over SGP Country Programs have actively partnered with women organizations at the local level and almost 1,400 projects were women-led. All these will serve as strong foundations for further contributions by GEF SGP in GEF-6 to achieve global environmental benefits and the defense of the global environment.

**Goal**

34. The goal of the SGP in GEF-6 can be stated in the following:

> *"Effectively support the creation of global environmental benefits and the safeguarding of the global environment through community and local solutions that complement and add value to national and global level action*".

**Objectives**

35. To achieve the overall goal, SGP will use a three-pronged approach: (a) by focusing its work on globally recognized critical ecosystems, (b) by setting-up innovative institutional and financial support mechanisms to expand the value and impact of projects nationally and globally and; (c) systematically developing the capacity of local and national civil society stakeholders as a key factor for environmental sustainability.

36. GEF SGP in GEF-6 will focus its efforts on the following strategic objectives:

(a) *Implementation of sustainable co-management of ecosystems of universal value at the landscape/seascape-wide level in participating countries.*

This represents a new approach for SGP, moving from standalone projects to a consolidated approach in such a way that, spatially and thematically, each project supported complements the others, thereby creating a greater impact at a faster rate. This also involves linking more closely to a clearly identified niche in the development and implementation of national plans and strategies as well as national policy making. Focused work can be supported by promoting the use of SGP as a delivery mechanism for national or regional level FSPs. Overall, these will provide support to involved CBOs and CSOs to graduate from SGP and move to active participation, even management, of larger projects.

(b) *Expansion of the coverage of and strengthening networks of Indigenous and Community Conserved Areas and Territories (ICCAs) within countries and globally.*

This objective supports an important objective of the CBD Program of Work on Protected Areas (POWPA) and potentially increases the global coverage of protected areas from 12% to 17%. It also follows the shift to consolidated and integrated approaches for SGP in GEF-6.

(c) *Establishment of a network of capable communities and CSOs in each country that will serve as hub for country-wide joint action and provide a representative*

*constituency for constructive dialogue with government in national-level environment and sustainable development planning and policy development.*

(d) *Global sharing of innovative technologies and methodologies for the protection and sustainable management of the global environment that are adapted to community and CSO application.*

(e) *Increasing the flow of additional resources to communities and local CSOs through the design and testing of sustainable use of local assets and innovative environmental financing mechanisms including their replication and scaling up.*

(f) *Developing capacity of CSOs, as a cross-cutting concern, and through focused approaches, to leverage additional donor and government funds, manage larger projects and support sustained action at local and national levels.*

**Initiatives**

37. There are four (4) strategic initiatives proposed for implementation at the country level:

1. Community Landscape and Seascape Conservation
2. Climate Smart Innovative Agro-ecology
3. Low-Carbon Energy Access Co-benefits
4. Local to Global Chemicals Management Coalitions

38. Additionally, support mechanisms will be organized:

(a) Barefoot Consultants

(b) Grassroots Reach communication channels

(c) CSO-Government Policy and Planning Dialogue Platform

39. At the global level, under a *Global Reach for Citizen-Practice Based Knowledge* program, SGP will set up the following platforms:

(a) Digital library of Community Innovations for the Global Environment

(b) South-South Community Innovation Exchange Platform

40. The implementation of these strategic initiatives will be highly integrated both in terms of geographic focus and portfolio programming. Gender mainstreaming and women's empowerment are very relevant to all of these strategic initiatives. SGP Country Programs will acknowledge gender differences and will support actions to promote women's role in implementation of programs and projects under the strategy. The synergistic relation between the four (4) *strategic initiatives* and the three (3) *support mechanisms* at the country level and two (2) platforms at the global level must also be noted. The strategic initiatives will provide inputs for these support mechanisms and platforms. The latter on the other hand will provide an enabling environment and will scale up the impacts of the strategic initiatives nationally and globally through networking and knowledge exchange. In this way, what starts at the local level eventually reaches global level discourse and action hence allowing the SGP to contribute more fully to global environmental benefits and to the safeguard of the global environment.

*Community landscape and seascape conservation (CLSC)*

41. During OP6, SGP will identify important ecosystems and use a landscape and seascape (CLSC) approach for their protection and sustainable use. Under CLSC, the number of WHS adopting a "shared PA governance" approach will be expanded globally with a special focus on natural WHS at risk in Africa. Similarly, SGP work with large international waters projects that utilized SGP as a delivery mechanism for their community/NGO components[168] will be used to set up *Satoumi* "ridge-to-reef" seascape approach to support the expansion of the global network of Locally Managed Marine Areas (LMMAs).

42. SGP through the community landscape and seascape conservation approach will assist civil society coalitions and governments to achieve of the Aichi CBD targets by 2020. Identified landscapes will promote Community-Based REDD+ (CBR+), an innovation arising out of SGP's community-based approach to forest carbon storage, piloted in Mexico and Panama. Under the CLSC, SGP will implement a truly multi-focal approach involving communities in buffer zones and corridors thus providing connectivity for complex landscape mosaics – representing a unique advantage GEF would have through SGP over other funding mechanisms.

*Climate Smart, Innovative Agro-ecology*

43. During OP6, SGP's niche in this will be in the production buffer zones of its identified critical ecosystems, also in forest corridors in danger of fragmentation, often remote and unaddressed by other traditional donors. Small grants in this initiative will be applied in synergy with the GEF6 Land Degradation Focal Area program on SLM for Climate-Smart Agriculture. SGP will innovate by integrating elements of *in-situ* conservation of genetic resources,[169] smallholder carbon sequestration, management for water availability, market-based solutions for promoting sustainable products, as well as use of land-based organic providers (i.e. biodeposit) to reduce use of chemical-based fertilizers, while also reducing emission from ozone depleting substances such as nitrites and nitrates. With support from a Global Initiative in CBA (GICBA) which will be formed to network CSOs from all countries involved in CBA, the proven methodologies and tools from these projects will be utilized to make agro-ecology projects within buffer and forest zones in more than 100 countries truly climate smart.

*Low Carbon-Energy Access Co-benefits*

44. SGP will contribute to "decarbonize" development while still satisfying global demand for energy services for 1.3 billion people without access to electricity and 2.7 billion that still rely on traditional biomass for cooking.[170]. SGP will work within the larger framework of Sustainable Energy for All (SE4ALL), which will provide a platform for scaling up SGP work in

[168] SGP was a delivery mechanism for the World Bank-implemented Nile Transboundary Environmental Action Project, the UNEP-implemented South China Sea Project, and the UNDP-implemented Program for the Environmental Management of the Seas of East Asia (PEMSEA).

[169] In-situ conservation of agrobiodiversity is an important task in the management of the global commons, one that is best taken on by the farmers themselves and exemplifies the important role of a grant mechanism that they can easily access.

[170] Resource Revolution: Meeting the world's energy, materials, food and water needs. McKinsey Global Institute, November 2011.

this sphere and synergies with national and global planning and policy advocacy. SGP will focus on low-cost and high mitigation options that can contribute to a large proportion of carbon emissions reduction, which, for improved cook-stoves alone, is estimated at 1 Gt $CO_2$ per year.[171] GEF and other public sector funding delivered by SGP will play a catalytic role, as successful innovations will be positioned to attract financing from private sector and households.

*Local to Global Chemicals Management Coalition*

45. SGP will focus support on communities in the forefront of chemical threats either as users or consumers. Activities will include support for innovative, affordable and practical solutions to chemicals management in joint effort with SGP's established partners such as IPEN, as well as new partnerships including with government agencies, research institutions, private sector and international agencies such as UNIDO and WHO. SGP will seek to establish systems of local certification of producers and/or their products which then could expand to the national level through initially producer-consumer agreements eventually graduating to national government policy. In mercury management, at least one artisanal gold-mining community in each of the hotspot countries - Burkina Faso, Cambodia, Ghana, Indonesia, Mali, Mongolia, Peru, Senegal, Tanzania, Zimbabwe – could be converted to the use of alternative gold mining techniques and serve as basis for policy changes in these countries.

*Global Reach for Citizen-Practice-Based Knowledge*

46. Expanding the reach of SGP knowledge and lessons learned will be further achieved through a highly proactive sharing of knowledge developed by the programme's wide network of grantee-partners.

47. Activities related to the promotion of citizen-practice-based knowledge will include the development of a **Digital Library of Community Innovations for the Global Environment.** Complementing the digital library of community innovations will be a **South-South Community Innovations Exchange Platform**. This platform will create active communities of practice, link mentors to emerging practitioners; provide contact persons in every SGP country that can share actual experience of particular projects[172] and of projects that can be used as models. An important feature would be for the platform, in regional groupings, to be able to use adaptive language and speak in virtually all languages and dialects. New inputs to these platforms will continue to come from community-based micro-projects which will form the bulk of SGP grantmaking.

[171] Assessing the Climate Impacts of Cook-stove Projects: Issues in Emissions Accounting, Carrie M. Lee, Chelsea Chandler, Michael Lazarus and Francis X. Johnson, Stockholm Environment Institute, Working Paper 2013-01) http://www.cdmgoldstandard.org/wp-content/uploads/2013/02/SEI-WP-2013-01-Cookstoves-Carbon-Markets.pdf

[172] In the GEF EO evaluation of Cuba GEF portfolio: Experiences and results from two SGP projects have received international recognition and willingness to replicate them abroad. For example, the expert in charge of an SGP project that developed a model for raising *Jatropha* was hired by Brazil and the expert in charge of an SGP project on biodiversity that developed a model for raising sponges was hired by Nicaragua and later by Mexico.

*SGP as Grantmaker+*

48. The high value of SGP to the GEF lies on the assets the programme has built up over the last 20 years. These include: (a) Global and national networks of over 16,000 grantee-partners alone, that have the ability to "speak" in almost all languages and dialects and can quickly and effectively mobilize constituencies on key environment matters, and; (b) Committed SGP staff in each country who, with more than a thousand voluntary NSC government and non-government members, provide a core for knowledge sharing, advisory services, and policy advocacy on GEF focal area matters.

49. To derive full utility for these built up assets there must be agreement that projects are not the ends but the means and that funds for non-grant services such as institution-building and policy advocacy are also vital and will allow SGP to build value beyond grant-making. The additional services and value that SGP can provide as a "Grantmaker+" include:

(a) assisting country stakeholders, especially communities and local CSOs, to develop relevant proposals as "***Barefoot Consultants***" particularly with the "direct access" modality of new funds;

(b) setting up a "***Grassroots Reach***" communication channel for use not only by SGP but also by the government, GEF, other international donor agencies, and the private sector interested either as a business partner on marketing sustainable products or in CSR partnership;

(c) supporting the establishment of a "***CSO-Government Policy and Planning Dialogue Platform***" (which could be in partnership with the GEF NGO Network) building on the built trust and joint working relationship developed between civil society and government in SGP National Steering Committees (NSCs);

(d) developing an ***Indigenous fellowship and dedicated grant-making window*** to promote proactive mentoring and capacity-building of indigenous peoples at national, regional and global levels. To expand and improve the portfolio of SGP 'Grant-makers+', the use of strategic projects and additional resource mobilization will help to initiate a dedicated funding window to support indigenous peoples on priority themes.

(e) Expanding support for **gender equality and women's empowerment** through promotion of women-led projects, mainstreaming gender in all relevant projects, as well as the national and global networking of women grantee-leaders for knowledge-sharing and policy advocacy. At present, SGP requirements include gender mainstreaming in project template, in the selection process for National Coordinators and National Steering Committee members with every committee having a gender focal point, in the development of SGP Country Programme Strategies, in monitoring and evaluation and in training and methodology development initiative. The strategy on gender mainstreaming and women's empowerment under SGP will be further strengthened during GEF6 in line with the GEF Gender Mainstreaming Policy and Gender Action Plan. This will include use of gender-sensitive indicators and collection of sex-disaggregated data and

this will be systematically recorded, reported and integrated into adaptive management.

50. In preparation for SGP in GEF6, country programmes will immediately begin the necessary institutional shifts that include strengthening the SGP staff capacity in many new non-grant skills such as policy advocacy, entrepreneurship, environmental finance, and project development with non-GEF funding mechanisms. The SGP National Steering Committee will be expanded to involve additional members from the Ministry of Finance and/or Economic/Development Planning as well as from the private sector. Networking with national and global CSO advocacy networks will also be expanded, including those based in key urban centers. Each country programme will identify at least one national university to establish an agreement to bolster SGP's scientific and technological base as well as its training capacity.

## ANNEX – DETAILED TABLE OF THE PROPOSED INDICATIVE RESOURCE ENVELOPES FOR GEF-6

| Focal Areas/Themes | GEF-5 Programming Targets ($ million) | GEF-6 Programming Targets ($ million) | |
|---|---|---|---|
| | | Status Quo | Status Quo Plus |
| **BIODIVERSITY** | **1,210** | **1,240** | **1450** |
| ***- STAR Country Allocations*** | ***968*** | ***995*** | ***1,205*** |
| ***- STAR Set-aside*** | ***242*** | ***245*** | **245** |
| *- Convention obligations* | *60* | *15* | *15* |
| *- Global and Regional Programs* | *52* | *80* | *80* |
| - Integrated Approach Programs | | 45 | 45 |
| - Taking Deforestation out of the Commodities Supply Chain | | 35 | 35 |
| - Fostering Sustainability and Resilience of Production Systems in Africa | | 10 | 10 |
| - Other Global and Regional Programs | | 35 | 35 |
| *- Sustainable Forest Management* | *130* | *150* | *150* |
| **CLIMATE CHANGE** | **1,360** | **1,220** | **1370** |
| ***- STAR Country Allocations*** | ***1,088*** | ***910*** | ***1025*** |
| ***- STAR Set-aside*** | ***272*** | ***310*** | ***345*** |
| *- Convention Obligations* | *80* | *130* | *130* |
| *- Global and Regional Programs* | *92* | *100* | *135* |
| - Integrated Approach Programs | | *50* | *50* |
| - Sustainable Cities - Harnessing Local Action for Global Commons | | 40 | 40 |
| - Fostering Sustainability and Resilience of Production Systems in Africa | | 10 | 10 |
| - Other Global and Regional Programs | 92 | 50 | 85 |
| *- Sustainable Forest Management* | *100* | *80* | *80* |
| **CHEMICALS AND WASTE** | **425** | **535** | **600** |
| ***- Convention Breakdown*** | *425* | *535* | *600* |
| *- POPs* | *375* | *370* | *380* |
| *- Mercury* | *15* | *130* | *175* |
| *- SAICM* | *10* | *10* | *20* |
| *- ODS* | *25* | *25* | *25* |
| **INTERNATIONAL WATERS** | **440** | **440** | **500** |
| ***- Focal Area Programing*** | *440* | *440* | *500* |
| **LAND DEGRADATION** | **405** | **415** | **475** |
| ***- STAR Country Allocations*** | ***324*** | ***330*** | ***390*** |
| ***- STAR Set-aside*** | ***81*** | ***85*** | ***85*** |

| | | | |
|---|---|---|---|
| *- Convention obligations* | *15* | *15* | *15* |
| *- Global and Regional Programs* | *46* | *50* | *50* |
| - Integrated Approach Programs | | *40* | *40* |
| - Fostering Sustainability and Resilience of Production Systems in Africa | | *40* | *40* |
| - Other Global and Regional Programs | | *10* | *10* |
| *- Sustainable Forest Management* | *20* | *20* | *20* |
| **NON GRANT INSTRUMENTS PILOT** | ***80*** | **85** | **150** |
| *- Sustainable Cities Integrated Approach Program* | | *5* | *5* |
| *- Other programs/projects with non-grant instruments* | *80* | *80* | *145* |
| **CORPORATE PROGRAMS** | **210** | **190** | **215** |
| Country Support Program (CSP) | 26 | 20 | 30 |
| Cross Cutting Capacity Development (CCCD) | 44 | 30 | 45 |
| Small Grants Program | 140 | 140 | 140 |
| | | | |
| **Corporate Budget: Secretariat, STAP and Trustee 1/** | **120** | **106** | **110** |
| **Independent Evaluation Office** | | **19** | **20** |
| | | | |
| **TOTAL GEF Replenishment** | **4,250** | **4,250** | **4,890** |

1/ In GEF5, the Evaluation Office budget was part of the Corporate Budget

***Memo items:***

| | | |
|---|---|---|
| **- Sustainable Forest Management** | **250** | **250** |
| *- Integrated Approach Programs* | *20* | *20* |
| - Taking Deforestation out of the Commodities Supply Chain | 10 | 10 |
| - Sustainable Cities - Harnessing Local Action for Global Commons | 10 | 10 |
| *- Sustainable Forest Management Programs* | *230* | *230* |
| **- Integrated Approach Programs** | **160** | **160** |
| - Taking Deforestation out of the Commodities Supply Chain | 45 | 45 |
| - Sustainable Cities - Harnessing Local Action for Global Commons | *55* | *55* |
| - Fostering Sustainability and Resilience of Production Systems in Africa | 60 | 60 |